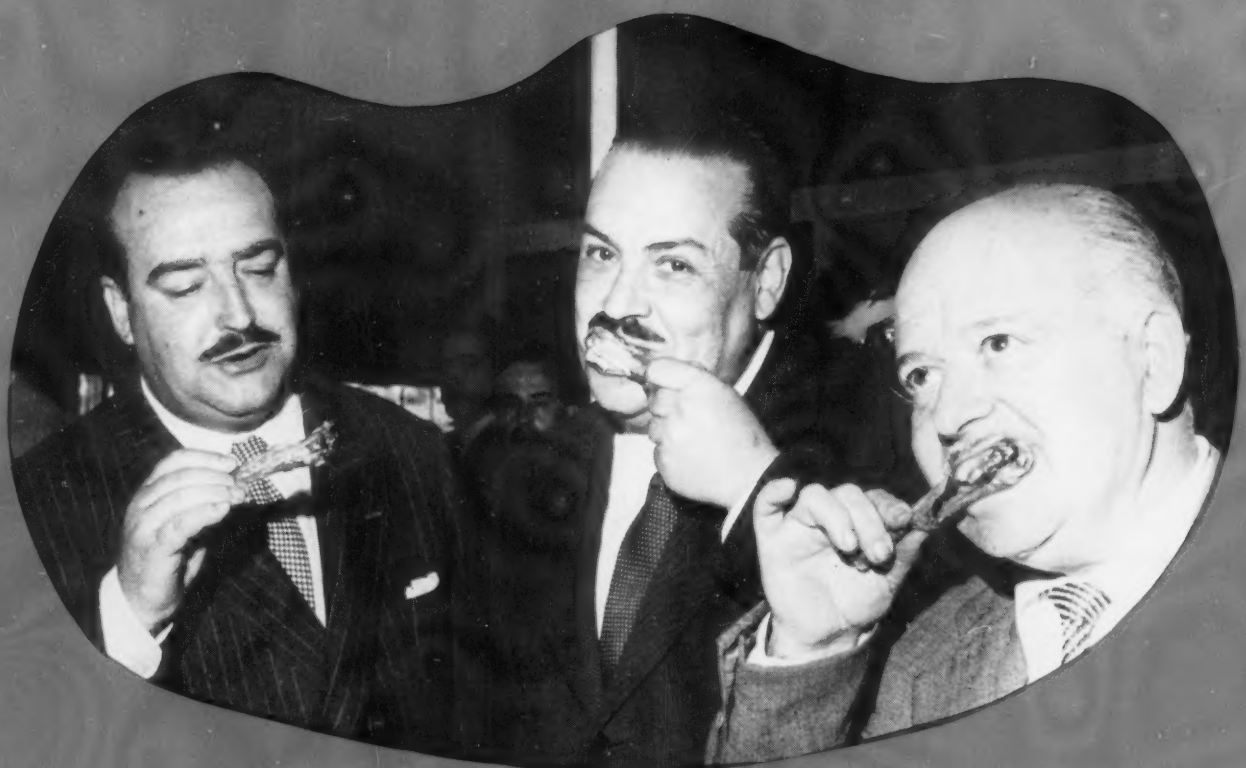
THE Soybean Digest

OFFICIAL PUBLICATION • AMERICAN SOYBEAN ASSOCIATION

Minneapolis Soybean Meetings Aug. 26-28



At Barcelona Fair, Spaniards enjoy U. S. chicken fried in U. S. soybean oil.

VOLUME 17 • NUMBER 9 JULY • 1957

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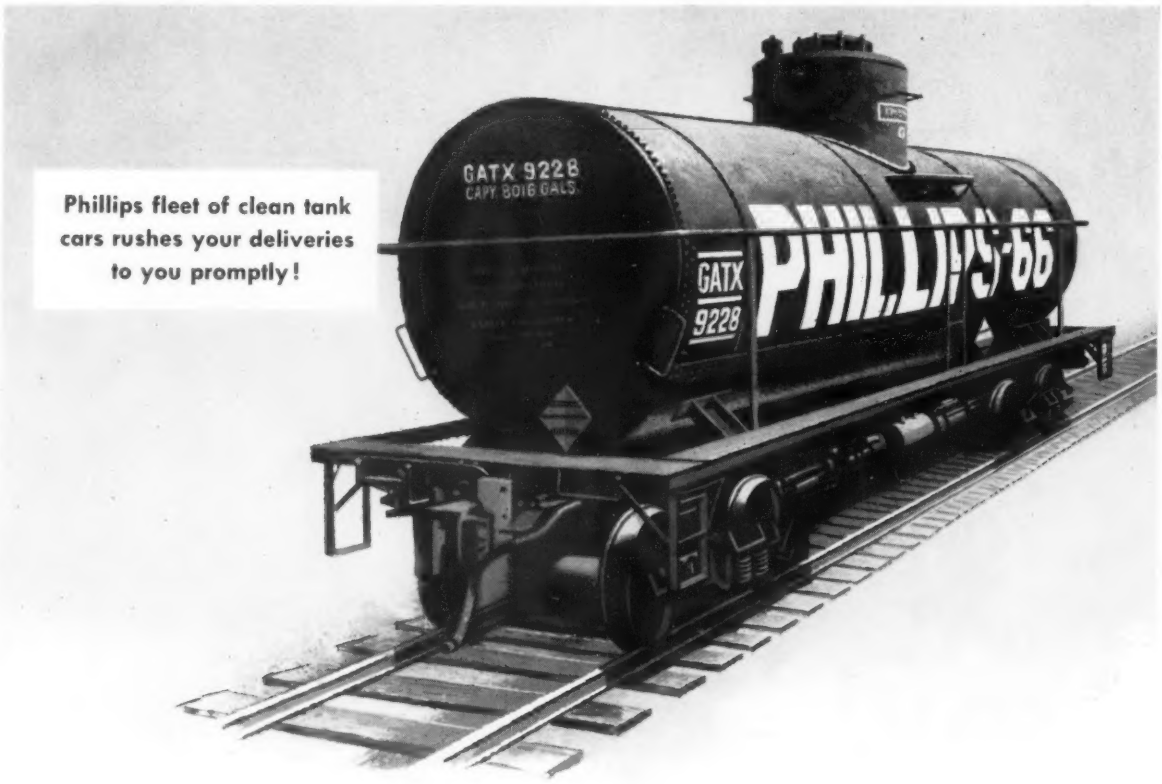

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THE Soybean Digest

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HUDSON, IOWA

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THE SOYBEAN DIGEST

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Objectives of the American Soybean Association include the bringing together of all persons interested in the production, distribution and utilization of soybeans; the collection and dissemination of the best available information relating to both the practical and scientific phases of the problems of increased yields coupled with lessened costs; the safe-guarding of production against diseases and insect pests; the promotion of the development of new varieties; the encouragement of the interest of federal and state governments and experiment stations; and the rendering of all possible services to the industry.

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EDITOR'S DESK

. . . By GEO. M. STRAYER

HANDLERS SHOULD COME IN The world wide nature of markets for U. S. soybeans is again emphasized by the opening of offices of the Soybean Council of the United States in Madrid, Spain. The Tokyo, Japan, office of the Japanese-American Soybean Institute, under the auspices of the American Soybean Association, has been open for over a year. Another office will be opened in Rome, Italy, very shortly. The story of your products and the possible place for them in the economies of other countries of the world is being told day after day in a manner which we hope is an effective one.

No longer can you look at your crop as a domestic one. Over 80 million bushels of whole soybeans will be exported from the 1956 crop. About one-half of the soybean oil produced from that crop will be exported. If it were not for foreign markets where would our industry be? And if it were not for U. S. soybean oil what would the world fats and oils supply situation be?

We must think in global terms. We must recognize that those things that affect the production of Japanese and Swedish rapeseed, Philippine copra, African peanuts, Argentine flaxseed or any other oilseed at any place in the world directly affect our market for soybean oil and thus soybeans.

And our industry has not yet devised the mechanism that we need to properly carry on the sales work and the service work which the U. S. soybean industry needs to do many places in the world. Strangely, the people who have a great stake in the future of the soybean industry of the United States have not yet seen fit to join with the other segments of the industry in providing the mechanism which we need to do our sales job.

One of two things will happen. Either the present handlers of soybeans will see fit to cooperate with other segments of the industry—or other avenues of handling and sales will result. It may come slowly, but it will come. Let's hope it is not necessary.

THIS COULD BE YEAR OF LOW YIELDS The weather man again asserts himself in 1957. A year ago drouth was already under way in many areas. Others were favored with ideal weather. Change is in order for this year. Water—an essential ingredient to plant growth—is more than abundant. Many areas, as our crop reports indicate, have acreages which were not yet planted on July first. Others were planted and have flooded out. Areas that have not seen standing water in years are experiencing it again in 1957.

The next soybean acreage report will be issued by USDA just about the time you receive this magazine. It will probably indicate an increase in acreage slightly larger than that predicted in the Mar. 1 planting intentions report.

But 1957 now appears to be one of those years when a bigger acreage does not mean a bigger bushelage. Anything can happen yet, but late planted acreages normally do not produce high yields. Many times they produce grassy and weedy fields—and harvesting problems. Also dirty soybeans. As the next 2 months progress we will see the trend of things.

But it now appears we cannot expect anything like the record setting yields of 1956. It now appears we may do well to produce as many bushels of soybeans as we did in 1956, on the increased acreage. And we could produce somewhat less bushelage, too. This could be one of the years when some of the surplus problems will be solved.

CONVENTION WILL FACE NEW PROBLEMS Details on the 1957 annual convention program will be carried in the August issue. It will be a historic meeting in that it is the first to be held after our industry changed from a deficit to a surplus position, and after CCC became the owner of the major portion of all available supplies of soybeans. It is, therefore, the first meeting where the problems of the industry have shifted in emphasis.

Reservations on rooms should be made early. The hotel facilities available at the Leamington are ideal for a successful convention. The hotel has an abundance of desirable rooms, it has several restaurants and eating places, and it has the meeting and display facilities that make a good meeting. It is air-conditioned—if such is needed in Minnesota.

If you have not made your room reservations we suggest you do so now. Send them direct to the hotel. Specify expected date of arrival, and the type of accommodations desired. Be ready for the big meeting which this year takes on special significance to our industry.

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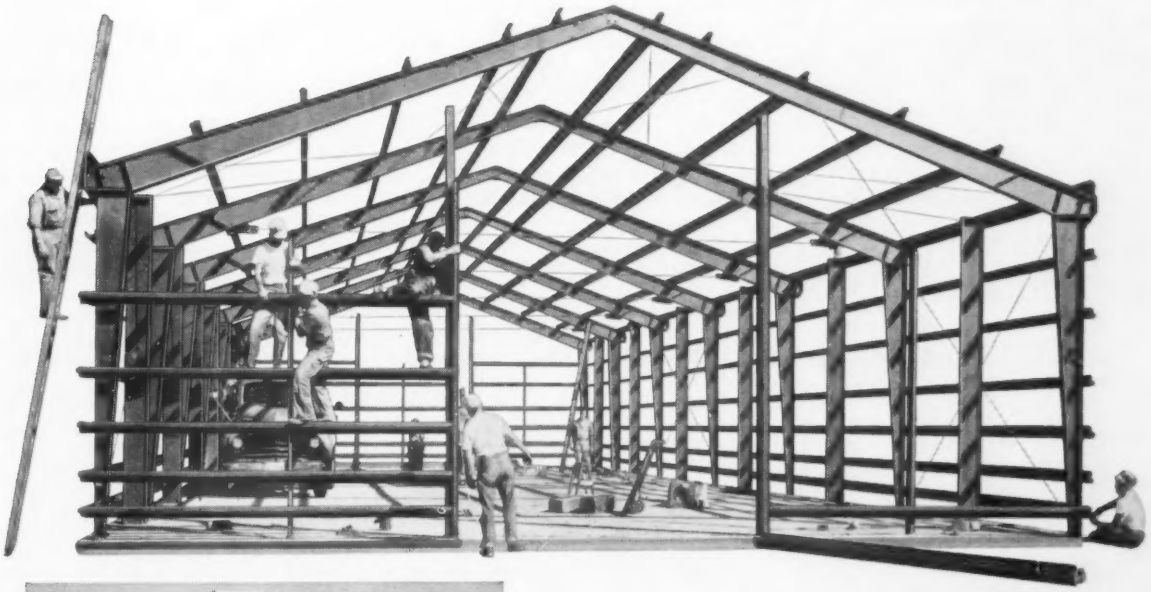

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PERSONNEL for Europe with Soybean Council president in the newly opened Madrid office in Edificio Espana. Left to right, Edward M. James, technical consultant for the Council at the Barcelona Trade Fair; D. Javier de Salas, director general for Spain; Fred R. Marti, general director for Europe; President Howard L. Roach; and Audrey M. Capes, administrative assistant to the general director for Europe at Rome.

Soybean Council Opens Offices in Madrid, Rome

Appoint general director for Europe

OPENING of the office at Madrid, Spain, of the Soybean Council of America, Inc., has been announced by Howard L. Roach, Council president. The office is in the Edificio Espana, mail address Grupo 5, Planta 18, Despacho 3.

President Roach, who has been in Spain and Italy where he activated the U. S. soybean market development projects in those two countries, returned home early in June.

He announced that the Council's general office for Europe will soon be opened in Rome. It will be headed by Dr. Fred R. Marti, who has been appointed general director for Europe, effective Sept. 15.

A former farm operator and manager and a graduate of Ohio State University and the University of Florida, Dr. Marti has been assistant agricultural attache with the Foreign Agricultural Service at Madrid since May 1955. He is a former employee of the U. S. Department of Agriculture and a government agricultural economist.

As announced in June, Don Javier de Salas has been appointed director general for the Council for Spain. He will be in charge of the Madrid office.

Educated in agriculture, Mr. de Salas has been employed by the U. S. Embassy doing liaison work with Spanish government officials, particularly in the agricultural field. He has been adviser to the Spanish Minister of Agriculture in setting up the new Spanish extension service.

Mr. de Salas is a contributor to agricultural magazines in Spain and has a 15-minute radio program on agriculture over a Madrid station.

President Roach also announced that Miss Audrey M. Capes has been named administrative assistant to Dr. Marti at Rome. A native of Scotland, she was recently an administrative assistant in the U. S. Embassy in Madrid. She has been bilingual secretary at the British-American Hospital and the South African Legation in Madrid.

U. S. Soy Products At European Fairs

EXHIBITS designed to promote foreign marketing of U. S. agricultural products attracted wide interest at international trade fairs in Barcelona, Spain, and Palermo, Italy, in May and June, according to the U. S. Department of Agriculture.

The USDA exhibit at the 25th International Samples Fair at Barcelona stressed availability and desirable characteristics of U. S. vegetable oils, cotton, grain, seeds, tobacco, dairy products, poultry and poultry products.

Demonstrations included cooking meaty frozen chickens and turkeys in soybean oil furnished by the Soybean Council of America, Inc. (See picture on front cover.)

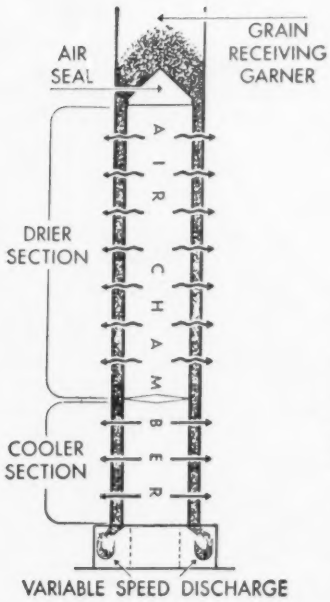
Potato chips fried in pure soybean oil were distributed at the USDA Barcelona exhibit. The displays, which are demountable and can be shown again at later fairs, were presented in cooperation with the Soybean Council and other private trade groups. Howard L. Roach, Plainfield, Iowa, president of the Council, attended the Barcelona Fair.

A USDA exhibit at the 12th Annual Mediterranean Fair at Palermo showed how U. S. concentrates and feed grains can help Italian farmers produce more poultry meat and eggs at less cost.

Interest among farmers and poultry industry leaders indicated the possibility of an expanded demand for poultry and poultry products in Italy, and a better market for U. S. protein concentrates and feed grains.

Technical advisers at the U. S. exhibit in Palermo included Kenneth N. Wright, poultry nutrition specialist with the A. E. Staley Manufacturing Co., corn and soybean processors of Decatur, Ill.

SAMPLING potato chips fried in U. S. soybean oil at Barcelona Fair. A new taste. At right is Howard L. Roach, president of the Soybean Council of America, Inc.



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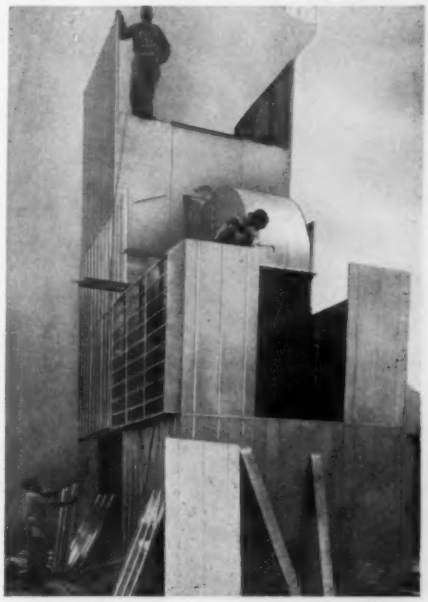

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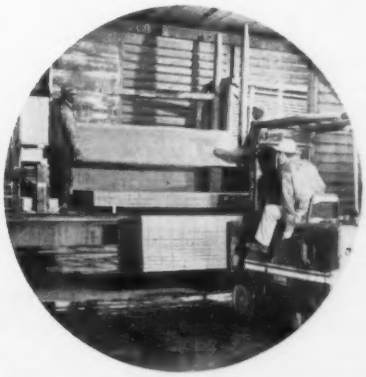
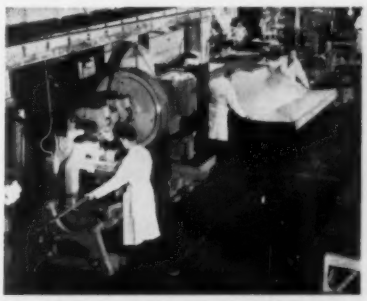
Shanzer's severest competition does in fact come from other Shanzer units, some a decade or two decades "new," which are still delivering top economy and performance. Talk with a Shanzer owner, see the difference, you'll agree the value buy in driers is a Shanzer.

Complete planning assistance on such things as drier layout, flow problems and special handling equipment has saved thousands of dollars for customers in many instances. Shanzer's quarter-century experience and fully staffed engineering department are at your call.



Fast processing and shipment of your order is another result of Shanzer drier specialization. Fully stocked inventories mean there's no delay in shipment, with the needed unit on the way in most cases within 24 hours!



Specialized manufacturing methods and equipment assure the highest quality obtainable in grain drying machinery. Every part must pass a rigid double check before final clearance, and insurance records show Shanzer driers to have the finest safety rating in the industry.

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We buy and sell commercial feeds with specific knowledge of the protein content. Why not do the same with human food?

Why don't we sell PROTEIN?

By **HARRY C. ANDREWS**
Protein Economics and Research Council, Inc., Ames, Iowa

I AM TALKING about food protein. Why don't we sell it in the same sensible, businesslike way that we sell feed proteins?

If we did we would soon whip this so-called farm problem right in the market place where it is located. The soybean industry stands to profit greatly by this.

Look how the commercial feed protein markets have been developed, expanded and stabilized. Standards have been set up and we buy and sell commercial protein feeds with specific knowledge of the quantity of protein they contain, its relative nutritive quality or feeding value, the net cost of that protein as well as the cost of the feed commodity that contains it, and what it will do for the animals consuming it.

Contrast this with the situation we find in food proteins for human consumption. Milk, meat, eggs, poultry, fish and cheese are major sources of animal protein as are cereal grains, beans, peas and nuts sources of vegetable protein. How many food shoppers and retailers know how much protein they buy and sell in these food commodities, its nutritive quality and net cost? Probably not one out of a thousand. This is an incredible state of ignorance and we each have the opportunity to help dispel it.

In the U. S. A. we currently consume about two-thirds animal protein and one-third vegetable protein totaling about 95 grams per capita per day, or roughly 80 pounds per year. Most of this protein costs from 50c to $8 per pound and takes about 60% of the American food dollar. This totals nearly $40 billion per year retail, a cost factor in our economy which has been grossly neglected by most economists and practical businessmen.

Need 20% More Protein

It would take at least 20% or about 15 pounds more protein of proper nutritive quality per person annually in the U. S. A. to satisfy the protein hunger of our civilian population and feed them well. This is based upon the amount the Army and Air Force find they must feed the enlisted man to get the desired strength, vigor, alertness, disease resistance, recuperative power and high morale. It is considerably above minimum requirements.

This represents a multi-billion-dollar market for more farm products. It is the market we have all been looking for and have so carelessly neglected. We have considered selling our products to build everything else in the world except the hand in front of our face which is protein. This is not the first time people have overlooked the simple and obvious solution to a problem, but it no doubt will stand in history as one of the most incredible.

Soybeans are one of the major sources of feed protein as we all know. That same protein is what builds the protein in meat, milk, eggs, poultry and cheese. The red stuff in meat, white stuff in milk, clear stuff in eggs and casein in cheese are examples of food protein. The only chemicals that can build them are feed proteins or their nitrogenous constituents.

In like manner food proteins are

Harry Andrews

the principal raw material of which our bodies are built. Skin, hair and fingernails are essentially pure protein. Muscle fibers, blood vessels, blood cells, plasma, heart valves, nerve fibers, brain cells, bone tissue, tendons, various vital organs, hormones and enzymes are all primarily protein.

Disease resistance is the capability to keep one's protein structures intact, and recuperative power is the ability to repair them when they are damaged. The necessary protein comes from the food proteins we eat.

Protein is the most tangible, practical, down-to-earth material known to every person. There is no life without protein.

If the protein hunger and the clinically proven protein deficiencies in the U. S. A. alone were to be filled with milk protein exclusively, it would take more fluid milk than that now being sold each year; or with beef protein, about one-and-one-half times the beef; or two times the pork, three times the eggs, four times the chicken, ten times the cheese or nearly fifteen times the dry milk now being sold annually.

A Whopping Market

What a whopping big market this would create for more soybean oil meal. By the time that much additional animal protein was produced we certainly would be getting a better price for our soybeans.

Beside this, there is nothing keeping the soybean industry from properly processing its soybeans, supplementing them with the necessary amino acids and growth factors, thus converting them into tailormade protein supplements to protein-enrich the native foods people normally eat all over the world. This can become a very profitable business, provided we learn to effectively sell food protein.

The annual world protein deficit is about 30 to 40 million tons. This is roughly equal to the total beef protein produced in the U. S. A. since 1900. This represents the greatest business opportunity in the world today.

In the face of this, how can intelligent men stand around asking themselves, "Where are we going to find additional markets for all our farm products?" You can certainly show them, if they are willing to see.

Three tons of food protein are needed in the world where there are only two today. Can you conceive of a greater potential market for all of agriculture? The soybean industry is in one of the best positions to cash in on it with both food and feed grade protein.

But to reap this harvest we must arouse the *desire* to sell protein. Farmers, grain dealers, government officials and most of all food processors, wholesalers and retailers must first recognize their opportunities to sell more protein and then help set up the necessary quality and quantity standards, protein pricing and price reports. Last, but not least, they must get out and teach, tell and sell the protein people need for maximum health benefits. And not just peddle, or self service a variety of food commodities that may or may not meet minimum requirements, much less optimum nutritional levels.

Food shoppers and consumers must know what protein is, what it will do for them if consumed in optimum amounts, its relative nutritive quality, the quantity received in each purchase and serving, the amount needed for best results and its net cost per pound or gram.

Each of us has a great opportunity to do something practical and constructive about selling protein on a sound businesslike basis. Through this effort we can help assure profitable expanding markets for our soybeans as feed and food for generations to come. We can, in our own way, all help develop the food protein markets.

We can start by asking, "Why don't we sell protein?" We should ask our local bakers, butchers, grocers, dairymen and restaurant managers why. They are the principal retailers of food protein. It will be only through such retailers in the U. S. A. and throughout the world that the tremendous unfilled protein markets will be supplied on a profitable basis.

We can ask our congressmen, the President, the Secretary of Agriculture, the agricultural colleges and the many associations of food producers, processors, promoters and distributors, "Why don't we sell protein?" Their efforts to answer this question will lead them directly down the road to solving agriculture's major marketing problem—the problem of selling food protein. There is absolutely nothing you could do that will help our great and expanding soybean industry more in its efforts to continue to grow and develop.

Research in Argentine

THE ARGENTINE Ministry of Agriculture is reported to have signed an agreement with a company to carry on soybean research, according to U. S. Department of Agriculture's Foreign Crops and Markets. This is the first time that the Ministry of Agriculture has entered into a cooperative agreement with a private concern.

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Processors Turning to Navigation

"U. S. PRICE SUPPORT programs, in one form or another, will continue indefinitely, with current agricultural supplies usually in excess of current requirements," D. J. Bunnell, buying vice president for Lever Bros. Co., New York, says. He spoke before the International Association of Seed Crushers' Congress in Rapallo, Italy, in June.

Bunnell said utilization of farm products must be broadened and consumption expanded both in America and the rest of the world, particularly in those areas where living standards are so much below our own.

Bunnell insisted that surpluses must be moved into consumption or exports regardless of exchange difficulties.

Quoting Bunnell: "The production of fats and oils in the United States has doubled in the past 30 years. By far the largest increases are confined to two categories of production—soybean oil and tallow and grease. These changes reflect the emergence of soybeans as a major cash crop and the population increase of livestock with the augmented kill of hogs and cattle.

"This spectacular development (of the soybean crop) was possible only because fast growing markets were able to absorb the products of the crushing mills.

Boost from Mixed Feeds

"The soybean processing industry received its strongest impetus for growth from its close alliance with the mixed feed industry. Research and the continual improvement of feeding formulas easily established the value of soybean protein to the feed manufacturer.

"Without this ever increasing protein supply, the American feed industry would not have grown into the GIANT it is today. During 1956, 35.7 million short tons of formula feeds were manufactured and distributed in the United States.

"Twenty-five years ago there was no such thing as a commercial broiler industry. It is now a billion dollar business. Turkeys that once were regarded as something special for Thanksgiving and Christmas are now consumed all the year around. In 1930 the rate of lay, per laying hen, was 121 eggs per bird. Now the rate of lay is about 190 eggs per hen, or an increase of about 69 eggs. Yesterday's 100 pounds of feed produced 12.8 dozen eggs. Today's 100 pounds of feed produces 19 dozen eggs. In 1930 a chick needed 14 to 15 weeks to reach an average weight of 3 pounds and required at least 5 pounds of feed per pound of gain—a total of 15 pounds of feed. Today good commercial growers raise a 3-pound broiler in 8 or 9 weeks on about 2½ pounds of feed per pound of gain—a total of 7½ pounds of feed per bird. Even these results are being improved.

"Forward progress in the dairy industry, beef cattle, calves and hogs is almost as dramatic.

"I do not intend to leave the impression this advancement is all due to soybean meal. My emphasis is that better protein balance, with higher level of use in the feeding formula, stands out as an achievement of first importance.

"I was actively engaged in soybean operations during the 1930's, when yearly soybean production was well under 100 million bushels. Even then a few far-seeing leaders in the soybean industry looked to the possibility of a 500-million-bushel crop. They had visions of an expanding feed business that would consume the meal fraction—80% by weight—if a market could be provided for the oil.

"Animal agriculture concerned with the production of meat, milk and eggs has really 'burst into bloom' since that time and confirmed the convictions of the few rugged individuals who could see the possibilities so far ahead in the future.

OILCAKE/MEAL UTILIZATION
Thousand metric tons

	1933/34 Total meal	1955/56 Total meal	Increase Total meal	Increase (Soybean meal)
Utilization by:				
Poultry, turkeys, etc.....	164	3,168	3,004	(2,878)
Pigs	185	1,418	1,233	(1,139)
Dairy and beef cattle	1,382	3,323	1,941	(1,145)
Others (including pets)	150	445	295	(241)
Total	1,881	8,354	6,473	
(Soybean meal only)	(90)	(5,493)		(5,403)

"In studying these figures, it should be realized that over 85% of

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our soybean meal is marketed in the form of mixed feeds, as compared with only about 30% for cottonseed cake and say 40% for linseed cake.

"A notable change has occurred in very recent years with respect to location of soybean plants. Originally the soybean industry depended almost altogether on rail or truck movement, both for receiving the beans and transporting the products. The more recent additions in the industry have given recognition to the advantages of navigation.

"Locations on the Mississippi River, the Tennessee River and their navigable tributaries have attracted new plants. Barge movement of soybeans to river plants is increasing. Water movement of soybeans, soybean oil and meal through Gulf ports has grown.

"The St. Lawrence Seaway, when opened, will further increase this trend. This is a decided change in soybean industry thinking when earlier plants looked only to the market at home.

"The expansion of dairying and poultry production in the Southeastern States is a new area for soybean meal consumption. Moreover, with the legislated cutback in cotton production, cottonseed crushers are steadily increasing their soybean operations."

New Margarine High

MARGARINE production for the first four months of 1957 reached an all-time high of 497,826,000 pounds, according to data released by the Bureau of the Census, U. S. Department of Commerce.

This represented an increase of 3.6% over margarine production for January-April 1956, which was 480,438,000 pounds.

Soybean Oil for Rotterdam

LOADING soybean oil on ship bound for Rotterdam at facilities of Bulk Storage Co., Inc., Morehead City, N. C. The firm has set up facilities for the handling of bulk liquids, especially fats and oils, for export/import by ocean-going vessels, during the past year. It has monthly service to the United Kingdom and the European Continent and one service to the Far East.

Winter Soybeans Speed up Research

WITH HELP from artificial light and heat, soybean research workers tried to produce an extra two generations of soybeans in the University of Illinois greenhouses this past winter.

Richard Bernard, plant breeder with the U. S. Regional Soybean Laboratory at Urbana, explains that these two extra generations help to speed up development of disease-resistant varieties and other improved soybean strains.

Since the short days of winter would cause soybeans to mature too soon, extra lights must be used to give about 14 hours of light in the greenhouses.

But the fluorescent lights used by the researchers do not completely substitute for sunlight. Their low intensity causes the soybean plants to grow extremely tall and spindly. Most of the plants grow 6 to 8 feet tall, and the stems are thin and weak. However, when the seeds from these abnormal plants are planted in the field, they produce normal-sized plants.

Disease resistance in soybeans is often found in varieties that are not suitable for Illinois conditions. So the job of the research workers is to cross adapted varieties with those carrying disease resistance and produce a new variety suitable for Illinois soils and climate. The new varieties must be able to produce high yields without loss from diseases.

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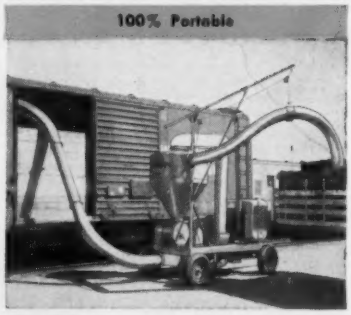

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AMERICAN SOYBEAN ASSOCIATION

Late News

Vol. 5, No. 11
Hudson, Iowa
July 5, 1957

Published 32 times yearly as a service to the soybean industry.

GROWING SEASON TO BE SHORT

Seldom has the size of the soybean acreage on July 1 been so hard to determine or the size of the crop so uncertain. The general expectation has been for an increase in acreage, perhaps a large increase.

But as of **July 1 a fairly substantial acreage was still unplanted.** And with torrential rains in late June flooding large areas in the soybean belt east of the Mississippi River many acres under water will have to be replanted later or abandoned. Local estimates on soybean acreage vary widely from steep increases due to switching other land into soybeans to sharply decreased acreage due to abandonment.

To summarize:

1—The crop is almost universally late.

2—A greatly increased acreage as compared with 1956 could still be planted, though this is not certain.

3—A record crop is still possible, but a short crop with high foreign material is also possible. It all depends on the weather from now on.

County Agent Keith Bilbrey, Blytheville, Ark., reported 10,000 acres still to be planted in north Mississippi County, Ark., on June 26. "For one of the few years in history, we'll have some idle acres."

Jake Hartz, Jr., Stuttgart, Ark., reports only 50% of the acreage planted in the south part of Arkansas County, and that his area has had 50 inches of rainfall the first 6 months of 1956, **equal to the normal annual rainfall.**

Frank Anderson, Stewardson, Ill., reports at least 25% of the acreage in Shelby County has been abandoned.

Chester B. Biddle, Remington, Ind., reports planting practically complete in northwestern Indiana, but not complete in the central and southern parts of the state, and that many river bottom acres will not be planted in southern Indiana.

Quoting Biddle: "Many feel the yield will be down compared with last 3 or 4 years. Late planting and weeds will affect yield." Biddle says it has been a very rough season to work with continued rain from March to June.

GOOD SALES BY CCC

Early sales of 1956-crop soybeans by Commodity Credit Corp. have been brisk, **with over 12.5 million bushels being moved as of June 27.** The figures for CCC regional offices for that date were: Chicago 7,213,166 bu.; Minneapolis 4,386,000 bu.; Dallas 650,000 bu.; and Kansas City 350,000 bu.

Some observers no longer look for CCC to hold many beans by the end of the season.

TESTIFY FOR P. L. 480

Howard L. Roach, president of the Soybean Council of America, Inc., and Geo. M. Strayer, executive vice president of the American Soybean Association, **endorsed the continuation of P. L. 480 and its expansion in some particulars** in appearances before the P. L. 480 subcommittee of the Senate Committee on Agriculture and Forestry June 27 and 28. They pointed out that P. L. 480 sales of vegetable oils abroad have saved Commodity Credit from taking over additional millions of bushels of 1956-crop soybeans.

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U. S. Senator H. H. Humphrey is chairman of the P. L. 480 subcommittee.

Strayer and Roach also attended the meeting of representatives of all organizations conducting market development projects under P. L. 480 while in Washington.

INVITE HANDLER REPRESENTATION

The Soybean Council of American board of directors meeting in Chicago June 26 voted to **extend an offer of representation on the board** to the following organizations: The North American Export Grain Association, the Federation of Grain Cooperatives, and the Grain and Feed Dealers National Association.

The Council will sponsor soybean exhibits at international trade fairs at Salonika, Greece, and Cologne, Germany, in September and October. The exhibit at Salonika will be basically soybean oil meal and the one at Cologne, soybean oil.

NEW ORLEANS MEETINGS

Grain grading people, exporters and terminal elevator operators will meet with Dewey Termohlen, agricultural attache at Tokyo, in a series of meetings at New Orleans July 29-30, to discuss the potentiality of the soybean export market in Japan, if handled correctly.

Strayer, Jake Hartz, Jr., Stuttgart, Ark., Dr. A. K. Smith, USDA's Northern Utilization Research Branch, and Val Hougen, foreign marketing specialist, fats and oils division of Foreign Agricultural Service, will attend the meetings.

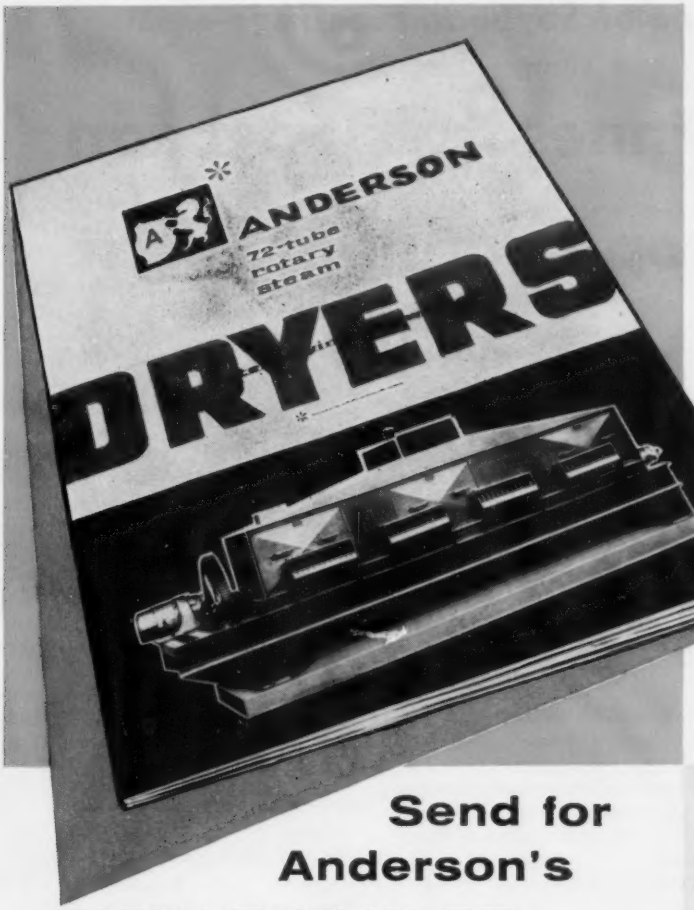
FURTHER NEMATODE HEARING

USDA has announced a public hearing on a proposal to **quarantine Arkansas and Kentucky for the soybean cyst nematode** to be held in the Panorama Room of the King Cotton Hotel, Memphis, at 10 a. m., July 24.

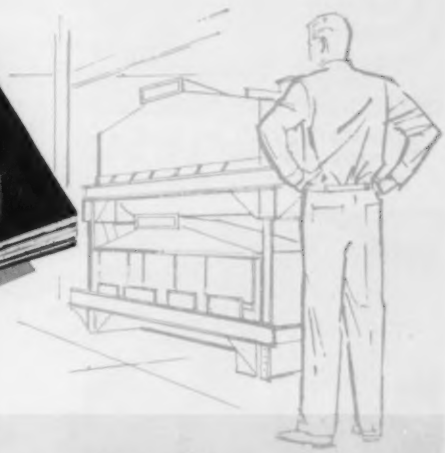
It is contemplated that regulations in Arkansas and Kentucky will be similar to those proposed earlier for Missouri, North Carolina and Tennessee. The nematode has been found in Mississippi and Crittendon counties, Ark., and Fulton County, Ky.

	Cash prices June 28
Soybean, No. 1 yellow, Chicago, bu.	$ 2.37¼
Soybean oil meal, Decatur, ton	44.00
Soybean oil, crude, Decatur, lb.	.11¾

	Cash price to farmers for No. 1 soybeans June 28	Cash price to farmers for No. 2 soybeans June 28	Retail cash price for bagged soybean oil meal June 28
Ark.		$2.25	
Ga.			$65
Ill.	$2.20 @ $2.22	2.18 @ $2.20	60 @ $68
Ind.	2.21	2.16	67 @ 72
Iowa	2.12		70
Kans.	2.13		62
Ky.	2.17		60
Minn.	2.15		74
Mo.	2.18 @ 2.30	2.20	66
N. C.		2.00 @ $2.25	64
N. Dak.	2.02		
Ohio	2.15 @ 2.20		
Okla.			
Va.		2.10	
Ontario		2.00	



DRYING GRANULAR MATERIALS?



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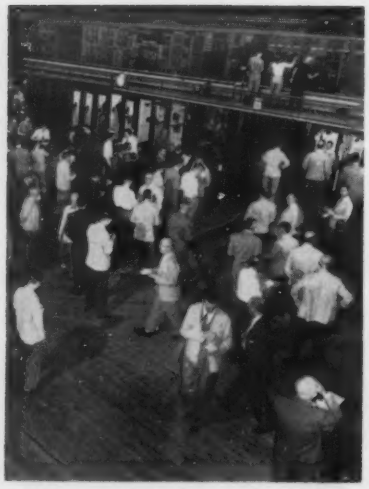
MINNESOTA's Dr. J. W. Lambert in the soybean breeding nursery at the Agricultural Experiment Station.



YOU ARE invited to visit the Minneapolis Grain Exchange in the Exchange Building.

Scene of Soybean meetings—

Minnesota's Soybean Crop Expanding Fast

TREMENDOUS things have happened soybean-wise since the last annual convention of the American Soybean Association was held in Minneapolis, in 1949.

U. S. soybean production has more than doubled in the intervening years. And Minnesota's production has more than quadrupled!

In 1949 the state produced 12 million bushels of soybeans and was proudly in sixth place among producing states. But in 1956 Minnesota grew 52½ million bushels and was second only to Illinois!

If when you go to the annual National Soybean Processors Association meeting and the American Soybean Association convention at Hotel Leamington in Minneapolis Aug. 26-28 you travel through southern Minnesota you will see the nation's second most concentrated soybean producing area. Central Illinois is the only section where soybean production is more concentrated.

The newer high oil content high yielding varieties adapted to the more northern areas have made possible this dramatic shift of soybean production in Minnesota in the past 8 years.

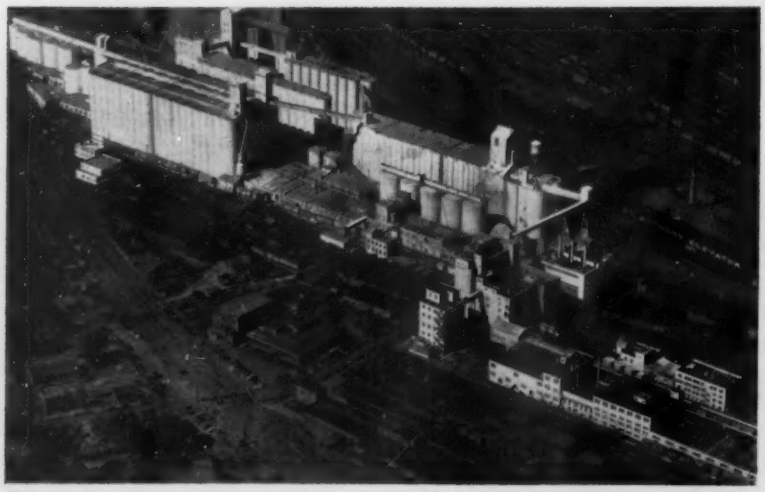
9 Processing Plants

There are nine soybean processing plants in Minnesota, three of them in or near Minneapolis—the Cargill, Inc., plant at Savage; the Minnesota Linseed Oil Co. plant in Minneapolis, which also processes linseed; and Consumers Soybean Mills at Lakeville.

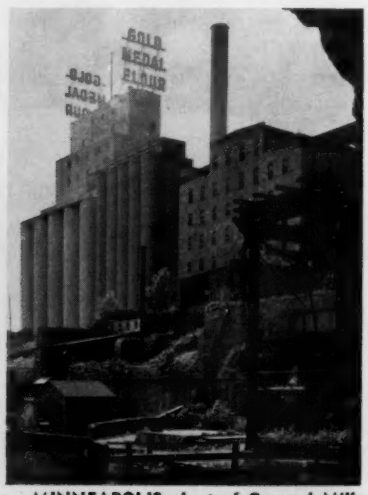
Two of the nation's major soybean processing firms, General Mills, Inc., and Archer-Daniels-Midland Co., also have their headquarters at Minneapolis. ADM has a processing plant at Mankato.

There are three soybean oil refineries in Minnesota, ADM plants at Mankato and Minneapolis, and Honeymead Products Co. at Mankato.

Some of the nation's largest terminal elevators for grain and soybeans are at Minneapolis and St. Paul, including those of ADM, Cargill, General Mills, Farmers Union Grain Terminal Association, Peavey Elevator Co., and many others.



VEGETABLE OIL refinery of Archer-Daniels-Midland Co. and ADM's 14½-million-bushel terminal elevator.



MINNEAPOLIS plant of General Mills is second largest of firm's 17 flour mills. Minneapolis is a city of flour mills.

Make your convention reservation: Hotel Leamington, Minneapolis 4, Minn.

The Minneapolis Grain Exchange has extended an invitation for people at the soybean meetings to visit the Exchange in the Grain Exchange Building. Trading hours are from 9:30 a.m. to 1:15 p.m.

Minneapolis is also known as the milling city, with headquarters of five of the world's largest wheat milling firms there. They are General Mills, International Milling Co., Pillsbury Mills, Russell-Miller Milling Co., and Commander-Larabee Milling Co. The flour mills offer conducted tours for interested visitors.

University of Minnesota, one of the nation's largest universities as measured by number of students enrolled, is located at Minneapolis and its sister city, St. Paul. The State Agricultural Experiment Station is at University Farm in St. Paul.

Experimental Work

The Experiment Station's soybean breeding work is concentrated on Rosemount Farm 20 miles south of St. Paul, with smaller amounts being done at St. Paul, Morris and Crookston.

Soybean breeding work is being conducted by Drs. J. W. Lambert and J. C. Sentz of the University's department of agronomy and plant genetics.

Considerable effort has been expended in recent years toward development of varieties early enough for central Minnesota and the Red River Valley of northwestern Minnesota.

If you stop at University Farm at St. Paul you will find perhaps of most interest groups O and I uniform regional trials, plantings of early Swedish selections for observation, a variety-weedicide trial, and a test of a number of the promising weedicides including Alanap and Randox.

If you stop at Rosemount Farm you will find the breeding plots and special plantings of soybeans in hills.

At the Waseca station in south central Minnesota you will find various yield trials including dates of planting in large plots handled with power equipment and several hundred breeding plots. A demonstration of effects of weedicides in fairly large plots is also planned at Waseca.

Prof. R. S. Dunham is in charge of weed control work at all stations.

A number of fertility experiments are being conducted on soybeans in Minnesota this year, according to Dr. A. C. Caldwell, professor of soils. These include N-P-K trials in progress at two experiment stations with soybeans carried as one of the crops.

An experiment is being set up with about a dozen fertilizer rates and combinations on soybeans grown continuously. And fertilizer experiments are being conducted in farmers' fields in an effort to determine primarily the potassium needs of soybeans, with a secondary interest in phosphorus and nitrogen.

UNLOADING soybeans on barge at St. Paul elevator of Farmers Union Grain Terminal Association.

THE SOYBEAN MEETINGS

Hotel Leamington, Minneapolis

Monday, Aug. 26—Annual business meeting, National Soybean Processors Association and meeting of National Crop Improvement Council.

Tuesday, Aug. 27, and Wednesday, Aug. 28—37th annual convention of the American Soybean Association.

Aug. 29—A field trip (tentative).

Rice Grain Corp. Opens Terminal Elevator

RICE GRAIN CORP. officially opened its operations at the Rice-Powell Elevator June 10. This most modern marine terminal elevator with a rated official capacity of 6,750,000 bushels is one of the twin elevators erected by the Chicago Regional Port District.

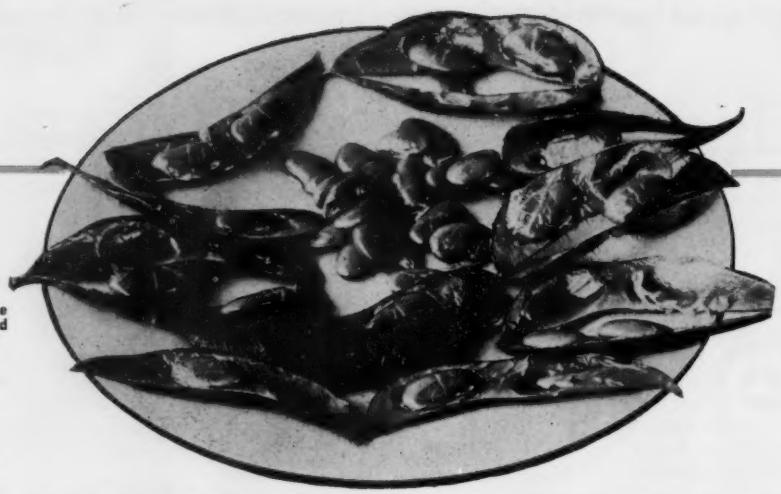
The elevator is located at Lake Calumet, Port of Chicago, on Chicago's far south side. It is situated at the junction of the Mississippi-Illinois Waterway and Lake Michigan. It has every modern facility for loading and unloading via rail, truck, barge and steamship. It is an integral part of the long-range Chicago plan for meeting the needs of the interior United States upon completion of the St. Lawrence Seaway.

Rice Grain Corp. represents a combination of a major Canadian and an outstanding United States grain interests. Daniel F. Rice, one of the two principals in Rice Grain Corp., is a noted figure in the U. S. grain trade.

Kenneth A. Powell of Winnipeg, Manitoba, has had a very extensive and interesting career in the Canadian grain trade. Among his many interests are K. A. Powell (Canada) Ltd., Powell Transits, Ltd., and Edible Oils, Ltd.

Active management of Rice Grain Corp. will be in a group headed by Ben Raskin who has been associated with the Rice organization for over 11 years.

Rice Grain Corp. plans to establish itself as a merchandiser and exporter of all U. S. grains, Canadian grains and soybeans.



The Hahto, one of the edible varieties used in the tests.

Palatability and ascorbic acid and sugar contents of six varieties of

Vegetable-Type Soybeans

By FRANCES O. VAN DUYNE, VIRGINIA R. CHARLES, OLIVE M. BATCHER[1] and KATHARINE J. HIVON[2]
Department of Home Economics, University of Illinois, Urbana, Ill.

FROM THE STANDPOINT of nutritive value the use of soybeans in the American diet is to be encouraged. However, more information is needed about the effects of preparation and storage on the palatability as well as on the amounts of nutrients present. This study was undertaken to compare the palatability of six varieties of freshly harvested and processed green vegetable-type soybeans and to determine the effect of freezing and freezer storage and of canning and storage on the ascorbic acid and sugar contents of the soybeans.

Materials and Methods

Favorite, Giant Green, Hahto, Jogun, Kia and Sanga soybeans were grown under the supervision of the department of horticulture, University of Illinois. Beans of the 1950, 1951, and 1952 crops were used with the exception of Giant Green soybeans, which were not available in 1950. They were harvested at the green vegetable stage [Woodruff and Klaas (15)] and were brought to the food research laboratory on the days they were picked.

Some of each variety of freshly harvested soybeans were hulled without blanching for determinations of moisture and ascorbic acid. However the major portion of each lot was blanched in the pods in hot water for 5 minutes and cooled in cold running water for 5 minutes to facilitate hulling.

After hulling, the blanched and cooled soybeans were sampled for moisture, ascorbic acid and sugar determinations and were cooked and scored for palatability.

Other portions of the blanched and cooled beans were frozen and canned. The preparation for freezing and conditions during freezing and storage were similar to those described by Van Duyne et al. (9), although some of the freezing and storage was carried on in a home freezing unit where the same temperature of storage as in the walk-in unit was maintained.

The soybeans were canned according to the directions given in "Wartime Canning of Fruits, Vegetables" (12) except that plain No. 2 tin cans were used in 1950 and enamel-lined ones in 1951 and 1952. The canned beans were stored at room temperature.

The palatability of the frozen and canned beans was rated after 6 months of storage. At the same time moisture, ascorbic acid and sugar contents were again determined.

For the palatability ratings 50 gm. samples of fresh blanched, and cooled, frozen, or drained canned soybeans were added to a boiling mixture of 34 ml. distilled water and 6 ml. 10% NaCl and cooked for 8 or 10 minutes after the liquid returned to boiling. Two to four research workers rated the fresh cooked soybeans on the basis of appearance, color, texture, flavor, and absence of off-flavor, while the cooked frozen and canned soybeans were rated usually by four but occasionally by three judges. A 5-point scale was used in which 5 corresponded to very good; 4, good; 3, fair; 2, poor; and 1, very poor. The numerical values for each characteristic were defined by adjectives to aid in judging and the total scores were obtained by adding the scores given to the five characteristics.

Moisture determinations were made by drying weighed ground samples to constant weight in a vacuum oven maintained at temperatures ranging from 55° to 60° C. The reduced ascorbic acid contents of the fresh, blanched and cooled, frozen and stored, and canned and stored soybeans were determined by the procedure used for soybeans by Van Duyne, et al. (10).

Samples were prepared for sugar analyses according to MacMasters, Woodruff and Klaas (6) but the extraction procedure differed. The beans were ground in a Waring Blendor with 70% alcohol and the sugars were extracted by alcohol using Soxhlet extractors. After removal of the alcohol and clarification, reducing and total sugars were determined by the official Lane-Eynon general volumetric method (1).

1 Present address, Human Nutrition Research Branch, Agricultural Research Service, USDA, Beltsville, Md. 2 Present address, Department of Biochemistry, Purdue University, Lafayette, Ind.

Results and Discussion

Mean ratings of individual palatability characteristics and total mean scores for six varieties of fresh, frozen and canned soybeans grown in 3 years are given in Table I. The ratings of the beans in the different years were averaged because the results obtained in each presented a similar though not identical picture.

The mean scores for these six varieties indicate that they were considered good or slightly above good as a cooked fresh green vegetable and only slightly less palatable after freezing and 6 months of freezer storage. The color, texture and flavor of the canned soybeans received mean scores below fair and the total mean scores correspond to ratings of fair.

In "Soybeans and Soybean Products" (7), Smith and Van Duyne reviewed earlier work which pointed to the same conclusions; that suitable varieties of green soybeans can be satisfactorily used as a vegetable; that desirable products are obtained by methods of home freezing; and that canned soybeans are less acceptable.

In general, the differences among the scores of the different varieties were smaller than the differences due to processing. Of the six varieties tested the cooked fresh and frozen Favorite soybeans received slightly higher mean scores than the other varieties and in 2 of the 3 years this variety ranked first when judged as fresh or frozen cooked beans. However, as canned beans the Jogun variety had the highest mean total score with the mean score for Sanga soybeans only slightly lower. The canning liquors of Giant Green soybeans of the 1951 crop and of Kia soybeans of the 1951 and 1952 crops exhibited gel formation. It is interesting that when the judges rated these cooked fresh beans they indicated they were past the optimum green vegetable stage. Walls (11) and Kramer et al. (4) state that maturity is one of the factors associated with gel formation.

Mean values for the reduced ascorbic acid contents of freshly harvested soybeans and of soybeans processed by home methods are given in Table II. The mean amounts of ascorbic acid present in beans of the 1950, 1951, and 1952 crops varied from .33 mg. per gram for Favorite soybeans to .28 mg. per gram for Kia. From 8 to 18% of the ascorbic acid originally present was lost during blanching and cooling and an additional 1 to 6% during freezing and 6 months of freezer storage. On the other hand the drained, stored canned soybeans retained relatively small amounts of

TABLE I. MEAN PALATABILITY SCORES OF COOKED GREEN VEGETABLE SOYBEANS OF THE 1950, 1951 AND 1952 CROPS

Variety	Treatment previous to cooking	Mean scores[1] Appearance	Color	Texture	Flavor	Absence of off-flavor	Total mean scores and mean deviations
Favorite	Blanched and cooled	4.2	4.2	4.5	4.6	5.0	22.4 ± 0.8
	Frozen and stored	3.9	4.2	4.2	3.8	4.9	21.0 ± 0.8
	Canned and stored	2.9	2.8	2.3	2.9	4.2	15.1 ± 0.6
Giant Green[2]	Blanched and cooled	4.2	4.4	3.4	4.2	5.0	21.2 ± 1.2
	Frozen and stored	3.8	4.0	3.6	3.2	4.9	19.5 ± 0.0
	Canned and stored	3.0	2.6	2.2	2.8	4.5	15.0 ± 1.2
Hahto	Blanched and cooled	4.1	3.9	4.0	4.2	4.6	20.8 ± 1.2
	Frozen and stored	3.8	3.9	3.8	3.5	4.9	19.9 ± 0.1
	Canned and stored	3.1	2.7	2.7	2.7	4.3	15.4 ± 1.1
Jogun	Blanched and cooled	4.0	4.2	4.2	4.2	4.8	21.4 ± 0.4
	Frozen and stored	3.7	3.9	3.9	3.9	4.9	20.4 ± 0.9
	Canned and stored	3.2	2.8	2.7	2.9	4.6	16.2 ± 1.1
Kia	Blanched and cooled	4.2	4.3	4.0	4.4	5.0	21.9 ± 0.4
	Frozen and stored	3.8	3.9	4.0	3.9	4.8	20.3 ± 0.6
	Canned and stored	3.0	2.5	2.3	2.7	4.4	14.9 ± 0.7
Sanga	Blanched and cooled	3.9	3.9	4.2	4.5	5.0	21.5 ± 0.8
	Frozen and stored	3.6	3.5	4.1	3.9	4.9	20.0 ± 0.5
	Canned and stored	3.2	2.7	2.9	2.8	4.2	15.9 ± 1.4

[1] Maximum score—5, very good; minimum score—1, very poor. [2] This variety was available only in 1951 and 1952.

TABLE II. MEAN ASCORBIC ACID VALUES FOR FRESHLY HARVESTED AND FOR PROCESSED GREEN VEGETABLE SOYBEANS OF THE 1950, 1951 AND 1952 CROPS

Variety	Treatment	Mean values and mean deviations: Moisture content %	Ascorbic acid content mg. per gm.	Retention of ascorbic acid raw weight basis[1] %
Favorite	Freshly harvested	72.5 ± 3.7	.33 ± .02	
	Blanched and cooled	72.9 ± 3.5	.27 ± .02	82 ± 0
	Frozen and stored	73.1 ± 3.1	.25 ± .01	76 ± 2
	Canned and stored	78.4 ± 2.5	.05 ± .02	14 ± 5
Giant Green[2]	Freshly harvested	65.2 ± 0.8	.30 ± .01	
	Blanched and cooled	66.8 ± 0.9	.26 ± .00	84 ± 0
	Frozen and stored	66.4 ± 0.1	.24 ± .00	80 ± 2
	Canned and stored	74.4 ± 0.3	.04 ± .00	16 ± 2
Hahto	Freshly harvested	68.8 ± 1.8	.32 ± .04	
	Blanched and cooled	69.7 ± 1.8	.27 ± .02	83 ± 3
	Frozen and stored	69.5 ± 1.5	.25 ± .02	79 ± 6
	Canned and stored	74.4 ± 1.0	.05 ± .02	16 ± 3
Jogun	Freshly harvested	72.0 ± 3.3	.30 ± .02	
	Blanched and cooled	71.6 ± 2.9	.27 ± .02	92 ± 4
	Frozen and stored	71.5 ± 2.4	.27 ± .02	91 ± 0
	Canned and stored	77.3 ± 1.9	.06 ± .00	21 ± 2
Kia	Freshly harvested	70.2 ± 4.0	.28 ± .01	
	Blanched and cooled	70.8 ± 4.2	.24 ± .01	85 ± 3
	Frozen and stored	71.6 ± 3.6	.23 ± .02	79 ± 4
	Canned and stored	76.9 ± 2.2	.05 ± .00	19 ± 1
Sanga	Freshly harvested	71.1 ± 1.4	.31 ± .02	
	Blanched and cooled	70.4 ± 1.4	.27 ± .02	86 ± 3
	Frozen and stored	70.6 ± 1.0	.26 ± .02	83 ± 6
	Canned and stored	75.5 ± 1.2	.05 ± .02	16 ± 4

[1] Based on the assumption that there is no difference between the weights of raw soybeans and those of blanched and cooled soybeans that are blanched and cooled in the pods. [2] This variety was available only in 1951 and 1952.

TABLE III. MEAN VALUES FOR REDUCING AND TOTAL SUGAR CONTENTS OF PROCESSED GREEN VEGETABLE SOYBEANS OF THE 1950, 1951 AND 1952 CROPS

Variety	Treatment	Mean values and mean deviations: Moisture content %	Sugar content as determined: Reducing[1] %	Total[2] %
Favorite	Blanched and cooled	72.9 ± 3.5	1.11 ± .07	3.21 ± .55
	Frozen and stored	73.1 ± 3.1	1.11 ± .06	3.34 ± .64
	Canned and stored	78.4 ± 2.1	.....[3]	1.56 ± .08[4]
Giant Green[5]	Blanched and cooled	66.8 ± 0.9	0.89 ± .09	2.65 ± .23
	Frozen and stored	66.4 ± 0.1	0.93 ± .09	2.78 ± .10
	Canned and stored	74.0 ± 0.6	.....[3]	1.06 ± .01
Hahto	Blanched and cooled	69.7 ± 1.8	1.11 ± .04	2.93 ± .29
	Frozen and stored	69.5 ± 1.5	1.13 ± .06	2.96 ± .26
	Canned and stored	74.1 ± 1.0	.....[3]	1.20 ± .07
Jogun	Blanched and cooled	71.6 ± 2.9	1.16 ± .07	3.18 ± .18
	Frozen and stored	71.5 ± 2.4	1.14 ± .08	3.25 ± .26
	Canned and stored	76.7 ± 2.4	.....[3]	1.31 ± .12
Kia	Blanched and cooled	70.8 ± 4.2	1.08 ± .10	3.06 ± .16
	Frozen and stored	71.6 ± 3.6	1.07 ± .12	3.06 ± .05
	Canned and stored	77.0 ± 2.0	.....[3]	1.30 ± .06
Sanga	Blanched and cooled	70.4 ± 1.4	1.16 ± .07	3.01 ± .06
	Frozen and stored	70.6 ± 1.0	1.17 ± .06	3.11 ± .04
	Canned and stored	75.4 ± 1.2	.....[3]	1.21 ± .04

[1] Calculated as dextrose. [2] Calculated as invert sugar no sucrose. [3] Only in drained canned soybeans of the 1951 crop were the reducing sugar contents high enough to be determined by the method used. [4] In 1950 the total sugar content of this variety was not high enough to be determined by the method used. [5] This variety was available only in 1951 and 1952.

the original ascorbic acid contents. The mean percentage retention for Jogun soybeans, 21%, was the highest of the six varieties and Favorite soybeans exhibited the lowest.

The figures obtained for the amounts of ascorbic acid present in these six varieties of raw soybeans are within the range published earlier by Van Duyne et al. (8) for nine varieties of soybeans. However, Caldwell et al. (3) reported lower values for Giant Green and Hahto soybeans and a higher value for Jogun than were obtained in the present study. Lee and Whitcombe (5) found that raw Giant Green soybeans contained 0.29 mg. per gram but that after freezing and 6 months at 0° F. they retained only 0.17 mg. per gram. Bedford and McGregor (2) reported that blanched canned Bansei soybeans retained 63% of their ascorbic acid content. However, this figure includes retention in the canning liquor and is therefore not comparable to the percentage retentions in the present study which are for the drained beans.

Mean values for the percentage of reducing and total sugars in blanched and cooled, frozen and stored, and canned and stored soybeans are presented in Table III. The relative amounts of reducing and total sugars in the freshly harvested blanched and cooled soybeans are similar to those reported by MacMasters, Woodruff and Klaas (6) though the actual amounts obtained in the present study are lower. These authors found that the reducing sugar content of nine varieties of green soybeans at the cooking stage ranged from 5.22% to 7.40% and the total sugar content from 16.04% to 22.83% and that the amounts present in both forms decreased as the beans became more mature. Calculated on the vacuum-dried basis the mean values for six varieties included in this study ranged from 2.68% to 4.17% and from 7.96% to 11.75% for the reducing and total sugar contents, respectively.

When the sugar contents for the 3 years were compared it was seen that there was as wide a variation within a variety (the total sugar contents of Kia soybeans ranged from 8.67% to 14.05%) as there was between varieties. Wolfe, Park and Burrell (14) reported lower values than the ones obtained here for the reducing sugar contents of Jogun soybeans planted on different dates and harvested on the same date.

Freezing and 6 months of freezer storage apparently had no effect on the sugar content of the beans. However, the drained stored canned beans retained only from 42% to 46% of the original total sugar contents and the reducing sugar content of the canned beans was so low that in 2 of the 3 years of the study it could not be determined by the method employed. It is interesting that Wilsie, Nelson and Lowe (13) found that the addition of sugar before canning seemed to improve the flavor and texture of canned soybeans.

Summary

Six varieties of freshly cooked green vegetable-type soybeans received total palatability ratings corresponding to good and the cooked stored frozen beans were only slightly less palatable. However, the cooked stored canned soybeans received ratings below fair for color, texture, and flavor.

Freezing and freezer storage had little effect on the ascorbic acid and reducing and total sugar contents though approximately 15% of the ascorbic acid content was lost during blanching and cooling. After canning and storage, the drained beans retained only from 14% to 21% of the amounts of ascorbic acid found in the freshly harvested beans and less than half of the original total sugar contents.

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New Processing Corp. Formed in Mississippi

TWELVE cotton oil mills, all fully equipped, have been bought by Mississippi Oil Mills, Inc., Jackson, Miss., a recently chartered $7 million corporation owned by state cotton ginners and cotton and soybean producers.

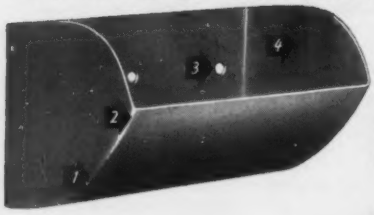
Mississippi Cottonseed Products Co. sold the oil mills, located in Jackson, Kosciusko, Grenada, Greenwood, Indianola, Greenville, Hollandale, Belzoni, Yazoo City, Hazelhurst, Magnolia and Newton.

Manager of the new corporation is W. K. McWilliams, Kemper County farmer and former Farm Credit Administration official.

Mississippi Oil Mills, Inc., initiated its stock sales program the first week in June, seeking to have a relatively large per cent of Class A stock sold prior to the beginning of crushing cottonseed and soybeans next fall.

Directors of the new enterprise are J. F. Barbour II, Indianola, president; R. W. Coleman, Okolona, vice president; T. S. Wood, Hollandale; Jack Causey, Liberty; J. H. Freeman, Jr., Greenwood, and M. R. Calder, Magee.

First Choice Wherever Grain is Handled



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CALUMET CUPS

Gaulding Elected Head Tri-States Mill Group

E. A. GAULDING, Buckeye Cellulose Corp., Jackson, Miss., was elected president of the Tri-States Oil Mill Superintendents Association at the annual meeting at Memphis, Tenn., June 5 and 6, succeeding Otis M. Beckham, Osceola Products Co., Osceola, Ark. Mr. Gaulding was first vice president during the past year.

E. A. Gaulding

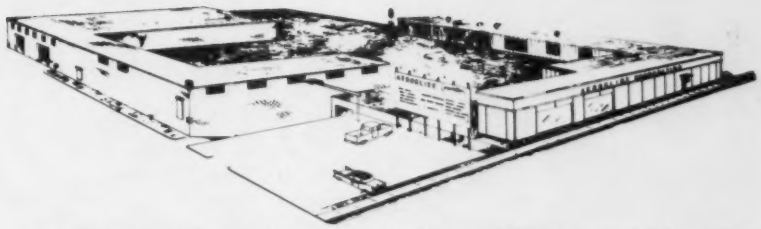
Other officers elected: Harry L. Southall, Union Oil Mill, Bunkie, La., first vice president; R. T. Herring, Ninety-Six Manufacturing Co., Ninety-Six, S. C., second vice president; O. D. Easley, Southern Cotton Oil Co., Memphis, Tenn., secretary-treasurer; and Mrs. O. D. Easley, 1455 East McLemore Ave., Memphis, Tenn., corresponding secretary.

Research committee: E. H. Tenent, Woodson-Tenent Laboratories, Memphis, Tenn., chairman; Lawrence Hodges, Forrest City, Ark.; and A. C. Wamble, Cottonseed Research Laboratories, College Station, Tex.

The 1958 convention will be held June 4-6 at the Edgewater Gulf Hotel, Biloxi, Miss., with B. C. Lundy and Woodson Campbell as co-chairmen.

The 1959 convention will be June 10-12 at the Buena Vista Hotel, also in Biloxi.

The 1957-58 regional meeting of the Association will be held at Memphis Dec. 1, 1957, with W. E. Hassler, Buckeye Cellulose Corp., Memphis, as chairman.

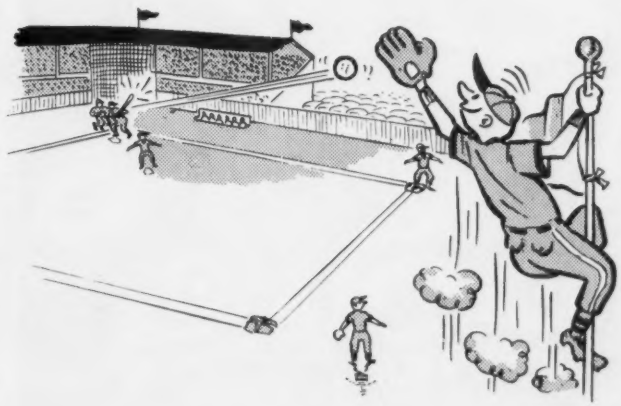


GENERAL OFFICE and No. 1 plant of the Aeroglide Corp. at Raleigh, N. C. Architect's drawing shows facilities as they now appear following recent completion of an added work area, crane bay and new truck loadout door. Continued increase in the demand for Aeroglide grain driers made it mandatory that the firm again expand its manufacturing facilities during the first quarter of 1957. It has increased production space approximately 3,000 square feet with a high overhead clearance. Aeroglide's No. 2 plant, not shown, was put into operation in July 1956.

Study Atomic Radiation

SCIENTISTS at the University of Illinois are continuing their study of the effects of atomic radiation on soybeans this season. D. W. Chamberlain, staff member of the U. S. Regional Soybean Laboratory, has finished planting the third generation of irradiated seed.

The researchers hope that soybeans getting this treatment will show resistance to brown stem rot, a serious soybean disease.



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National Fats & Oils Brokers' Association

Allan K. Smith

Dr. A. K. Smith Receives Superior Service Award

DR. ALLAN K. SMITH, a member of the Northern Regional Research Laboratory, Peoria, Ill., and an international authority on soybean protein and its uses, received a superior service award from Secretary Ezra T. Benson at the Department of Agriculture's 11th annual awards ceremonies in Washington, D. C.

Dr. Smith received his award "for meritorious creative contributions advancing basic knowledge of soybean proteins leading to their isolation and characterization, pilot-plant production, and increased industrial and food uses."

His monograph on Chinese, Korean, and Japanese use of soybeans for foods, written after a personal survey, widely circulates throughout the world. Foreign chemists come to study under him.

Increasing industrial uses for soybeans is a major objective of the Northern Laboratory.

Dr. Smith started his research on the chemistry and uses of soybean protein at USDA's Regional Soybean Industrial Products Laboratory at Urbana, Ill. When that laboratory became an integral part of the Northern Regional Laboratory at Peoria in 1942, he continued his research on protein properties and food uses of oilseeds.

The basic research results on soybean protein conducted under his direction have made a major contribution to the estimated annual production of 50 million pounds of isolated soybean protein. Based on information developed in his studies, this protein is used in paper coatings, in plywood adhesives, and in shotgun shell casings, as well as in such food products as bread, spaghetti, breakfast foods and cheese.

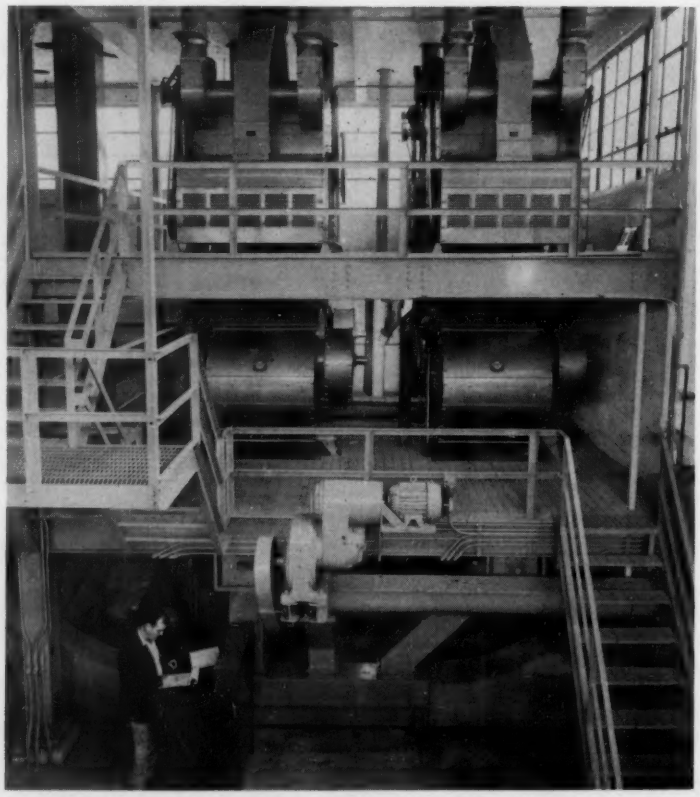
Council Attorney Killed

BEN F. BUTLER, prominent Waterloo, Iowa, attorney and legal adviser to the Soybean Council of America, Inc., was fatally injured in an automobile collision in Waterloo and died June 14.

Mr. Butler, a former district judge, played a leading role in the formation of the Soybean Council a year ago, and had been active in the organization since.

A longtime leader in Boy Scout work, Mr. Butler was returning home from a Scout meeting where he had presented Silver Beaver awards to several outstanding Scout leaders, when the accident occurred.

Cargill's Memphis Dehulling Operation



DEHULLING EQUIPMENT. Much interest has been expressed in the dehulling operation at the new soybean processing plant of Cargill, Inc., in Memphis, Tenn., which was illustrated in our May issue. A larger illustration of the dehulling equipment installation appears above. It consists of Carter Millerators and Carter Duo-Aspirators following the cracking rolls. The Carter Millerators shown in the upper level remove loosened hulls both by screening and aspirating operations. The Carter Duo-Aspirators on the lower level remove additional hulls by aspiration.

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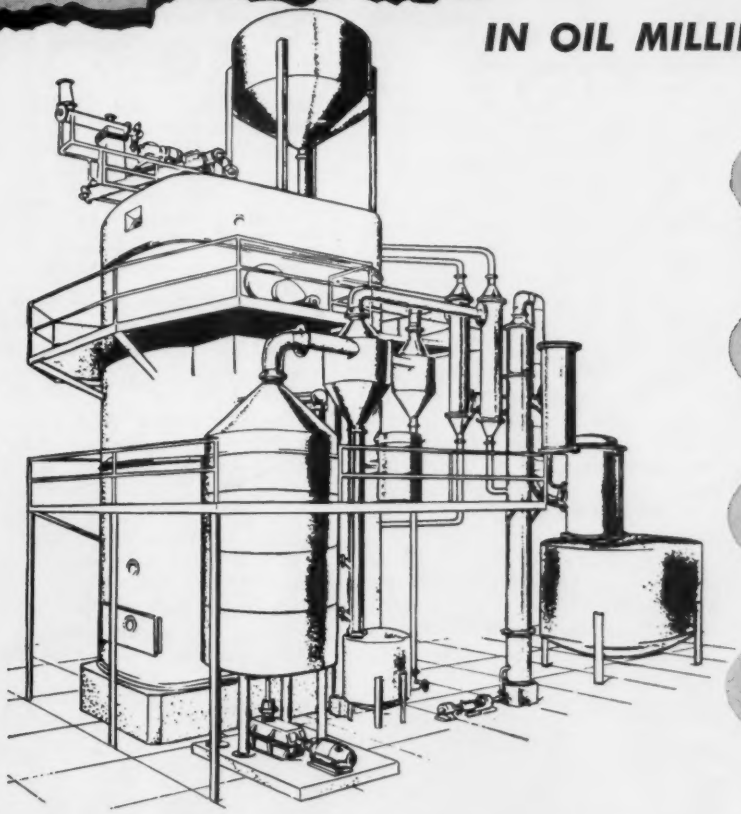

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The French Oil Mill Machinery Co.'s more than a half century of experience covers every aspect of solvent extraction—large plants and small, indoors and outdoors, for processing every type of oil bearing seeds and nuts.

French has more than twice as many full-size extraction plants in operation as any other manufacturer in this country. And each year, these French plants process almost as much oil tonnage as all others combined.

French has designed and built solvent extraction equipment to meet the needs of every mill—from the largest to the smallest—as shown by this list of French plants now operating:

15 installations—daily capacities 500 to 1000 tons and over

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A total of 62 French solvent extraction installations now processing all types of oil seeds and nuts—producing highest quality products . . . and profits for their owners.

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U. S. Beans High in Oil, Protein

By SHIZUKA HAYASHI
Managing Director, Japanese-American Soybean Institute, Tokyo, Japan

WITH AN EXPANDED budget, double that of the previous year, the work of the Institute is progressing, concentrating more in the educational and promotional activities.

May was occupied by the Tokyo Fair exhibit. The immediate result of the exhibit is of course difficult to appraise, but with people including the trade groups and the general public gathered in Tokyo for the Fair from all over Japan it can safely be said that soybeans and their various products have been widely introduced with the nutritious values made known to the people through various literatures and pamphlets. Undoubtedly, at the same time, the important role U. S. soybeans play in the Japanese market has been well implanted here in Japan.

Chen Article

The effectiveness of promotional activities, although still in an early stage, is gradually manifesting itself. In one instance, a girls' university in Tokyo approached the Institute for educational information and suggestions helpful in opening a new course in the study of the nutritious values of soybeans in cooking. In another instance, quite recently we were requested by a Miso Association in Sendai, a few hundred miles north of Tokyo, to send them a few hundred copies of our booklet entitled "Heart Disease and Soybeans," a Japanese translation of an article authored by Dr. Philip S. Chen, in which there is a paragraph devoted to the value of soybeans.

A part of our educational and promotional work, as already referred to in my previous reports, is being assigned to government agencies like the Food Life Improvement Association and the Nutrition Association. Apart from these programs the Institute has planned to carry out its own promotional work in various ways. Newspapers, magazines, and radios are utilized and whenever occasions offer the Institute will hold its own educational meetings or participate in meetings to be held by various trade groups or government institutes.

On the occasion of the annual convention of All Japan Nutritionists Association which was held for two days in Tokyo in the latter part of May, where there were more than 3,000 nutritionists, we displayed the exhibits that had been used in the Tokyo Trade Fair including not only the various soybean products but the different varieties of U. S. soybeans. An illustrated lecture was given by this Institute on the subject of U. S. soybeans particularly referring to the study made by this Institute on the superior quality of U. S. soybeans by giving figures of analyses made on various samples of U. S. soybeans and Chinese soybeans.

It has been generally believed that U. S. soybeans are more suitable for oil processing because of higher yield of oil, but that due to a smaller content of protein U. S. soybeans are not suitable for manufacturing food products, and for this reason preference has been given to Chinese soybeans by the food manufacturers of such products as miso, shoyu, natto, kinako and tofu.

The result of the study made by this Institute is enlightening. It is quite contrary to what has been believed by many. The following is a table showing figures of moisture, oil, and protein percentage on nine different samples taken from nine different shipments arriving during December 1955 to March 1957, from the United States and China:

RESULTS OF ANALYSES

	U. S. soybeans					
	1	2	3	*4	5	6
	%	%	%	%	%	%
Oil	20.21	20.24	19.47	19.84	20.29	20.04
Moisture	11.30	13.30	11.79	11.87	11.23	13.15
Protein	42.19	41.50	40.69	39.43	41.25	40.69

	Chinese soybeans		
	7	8	9
	%	%	%
Oil	18.69	18.40	19.17
Moisture	14.59	13.30	14.59
Protein	40.00	39.31	39.13

* Minnesota beans imported for the first time.

These figures definitely show that U. S. soybeans not only contain more oil but also a higher percentage of protein than the Chinese soybeans. Repeated similar tests, perhaps by taking average of 3 or 4 years, will be necessary to establish sufficient ground before it can be definitely proved that U. S. soybeans in general contain more protein than the Chinese soybeans.

It is interesting to note, however, that on the strength of these analyses made by the Institute, the Shoyu Association, which comprises more than 7,000 manufacturers of shoyu all

BOARD OF DIRECTORS of Japanese-American Soybean Institute meet in Tokyo headquarters. Left to right, Saihei Toriumi, vice president Japan Shoyu Association; Keiichi Matsuoka, retiring president Oil & Fat Importers & Exporters Association; Kumazo Abe, president Japan Tofu Association; Albert Dimond, president American Soybean Association; Howard Akers, assistant agricultural attache, Tokyo; Tokibei Tanaka, vice president Japan Miso Industry Association; Mitsuo Hirano, president Japan Oil & Fat Manufacturers Association; Ersel Walley, chairman American Soybean Association market development committee; and Shizuka Hayashi, managing director Japanese-American Soybean Institute.

over Japan who use soybeans and soybean meal totaling approximately 350,000 tons in terms of soybeans a year, has recommended at its annual convention to give preference to U. S. soybeans and even to pay a premium for the higher content of protein.

The same theory could be applied to the manufacturers of soybean products who place more importance on protein than on oil. The Institute has sent out circulars to approximately 30,000 manufacturers of tofu who have a potential requirement for soybeans of over 400,000 tons a year. Efforts will further be made to educate the miso manufacturers who are at present giving preference to Chinese beans. It should be kept in mind, of course, that the miso manufacturers as well as the tofu makers require soybeans having as little foreign material as possible.

J. R. Dicken Heads N. O. Grain Inspection Work

J. RAYMOND DICKEN has been placed in charge of grain inspection activities of the U. S. Department of Agriculture New Orleans office, the USDA has announced.

J. R. Dicken

Dicken will supervise the work of licensed grain inspectors at New Orleans, Mobile, Port Allen and at other points in the New Orleans district. These inspectors obtain and analyze samples of grain to determine its proper grade under standards established by the U. S. Grain Standards Act.

Practically all of the soybeans and other grains that arrive at the inspection points are destined for export and inspected out as cargo loading.

Mr. Dicken has served in the New Orleans office since 1938. Previously he served with USDA's Forest Service, and the Extension Service in Kansas.

Grain inspection is one of three major service programs of the New Orleans office. The other two consist of rice inspection and grading, and rice market reporting. Upon the recent retirement of W. D. Smith who had been in charge of all three programs, the office was realigned so that each program is now under the direction of a person with long experience in that particular field.

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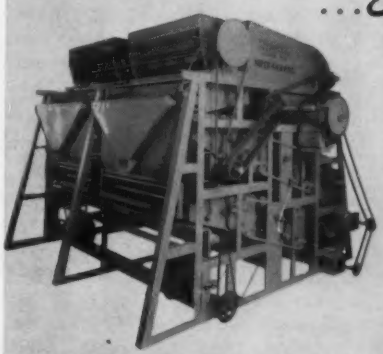

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QUADFLOW

In the same respect as with the two fast cleaners above, the 6000 bushels per hour rated capacity of this big, powerful Clipper is conservatively stated. Greater output is possible depending on the condition of the grain and desired degree of cleaning. Users acclaim its dependability—"once adjusted it does a consistently faithful job of cleaning, hour after hour, with little more than an occasional glance to check feed and flow." Built in steel construction only. ***6000 bu. SOYBEANS.***

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A. T. FERRELL & COMPANY Saginaw, Michigan

CROP REPORT

Large Acreage Is Still Unplanted

PLANTING OF THE soybean crop was further delayed during June and late in the month there were still large acreages to be planted, particularly in southern Illinois, southern Indiana, southeastern Missouri and in lowlands and river bottom areas.

Planting was about complete in Iowa, Minnesota, Ohio and southeastern Ontario.

Most observers looked for a larger national acreage than last year, but a lower per acre yield. Agronomists point out that delayed plantings generally result in reduced yields.

Condition of that part of the crop that had been planted was in general good.

The season being what it is there are bound to be some weedy, grassy fields. But a surprising number report a good outlook for weed control.

Spot reports from our correspondents:

Florida. E. N. Stephens, county agent, Pensacola (6-21): Small grain must be harvested before (balance of soybean) planting and showers prevent this. Condition of crop very good. Moisture supply good.

Illinois. C. R. Acord, Kansas (6-21): Our territory practically planted, but south of us in Clark County some plowing yet to be done and they will need another week or more. Our early beans were extra weedy when the weather cleared up. Planting date 3 to 4 weeks later than normal. Acreage 15% increase over 1956, 5 to 10% over USDA intentions report. Crop extra good color and growing fast.

J. E. Johnson, Champaign (6-22): Still a small percentage of producers who will need most of next week to complete seedings. Recent flood rains added to already large planned acreage. General growing conditions very satisfactory. Early varieties used extensively. Outlook for weed control normal.

Indiana. K. E. Beeson, Agricultural Extension Service, Lafayette (6-21): There are sections everywhere in the state where soil is still too wet and much of corn and soys remain to be planted. Crop Improvement Association board members from southwestern Indiana report very little planting this week and will be some time before river bottoms are drained. This is one of the heavier soybean growing sections of the state and planting in that section greatly retarded. Planted soybeans, which I have seen in 350 miles of travel in last 7 days, look very good although the growth is short. Stands excellent. In north central Indiana generally farmers are getting ahead of the weeds.

George K. Black, J. A. McCarty Seed Co., Evansville (6-21): Planting about 3 weeks late. Probable decrease in acreage as result of adverse weather. Approximately 50% yet to be planted. Lots of overflow ground and heavy soil will do well to get in by July 10. Considerable acreage being planted to grain sorghum as a better value for extra late planting.

Kansas. Elmer L. Buster, Kansas Soya Products Co., Emporia (6-20): At present acreage about 50% less than 1956. A spell of dry weather next 10 days will bring it to full acreage as compared with last year. Upland acreage pretty well in. River bottom acreage yet to be planted. Moisture conditions very good. Weeds may be problem with wet fields.

Louisiana. Mark H. Brown, Lake Providence (6-20): Acreage 70% of last year's crop. Continuous rains since last February have made all crops late. Some lands too grassy for soybeans. Due to late harvest of oats and wheat very few soybeans will be planted behind these crops. The small crop we have is very good and advanced. Some starting to bloom. Too much rain and still raining.

Minnesota. Howard E. Grow, Farmer Seed & Nursery Co., Faribault: Probable increase of 10% over 1956 about as planting intentions. Subsoil still somewhat lacking in moisture. Some fields are weedy.

Mississippi. H. H. Huddleston, Lamont (6-22): Planting later than usual but in accord with experiment station recommendations. Very little still to be planted. Over 40 inches of rainfall so far this year. Ten to 20% increase in acreage.

Missouri. Arthur E. Frank, Dannen Mills, Inc., St. Joseph (6-20): About 5% increase in acreage. 5 to 10% of crop still to be planted. Liberal moisture supply. Condition of crop slightly above normal.

O. H. Acom, Wardell: We have had one of the wettest seasons in my 31 years in southeast Missouri. A lot of replanting and replanting the second time on cotton and some replanting on beans. It is usually very hard to get beans up after the middle of June and our land, after being flooded out so many times, is not in good planting condition.

J. Ross Fleetwood, University of Missouri, Columbia (6-22): Plantings will finally be about same as last year and slightly under planting intentions. Probably 10% still to be planted. Crop in good shape but very late in many areas. Weeds a serious problem in some fields. On whole situation is good.

Ohio. G. G. McIlroy, Irwin (6-20): 5-10% increase over intentions due to wet weather. 5% yet to be planted. With a material acreage planted late production must be reduced. Fine prospects for crop but later than usual.

Calvin Heilman, Kenton (6-21): Planting date 2 to 2½ weeks later than normal. Acreage perhaps 10% above 1956. Late planting and poor weed control can easily offset any increase in acreage.

Ontario. R. H. Peck, River Canard (6-21): Most growers not happy with the price, but late season and corresponding low price for corn has put acreage up a little. Moisture supply excellent. Condition of crop above average.

Chipperfield Heads Oil Crushers Again

GUY CHIPPERFIELD, Great Britain, was reelected president of the International Association of Seed Crushers at the 35th congress June 4-7. The meeting was held at Rapallo at the invitation of the Italian Seed Crushers.

Other officers reelected were J. C. A. Faure, Great Britain, vice president; and A. E. Peel, Great Britain, secretary. M. Coyette, Belgium, was elected a vice president.

Papers were read by Mr. Faure, "The World Oils and Fats Position"; D. J. Bunnell, U.S.A., "The American Oilseed Crushing Industry"; J. G. Collingwood, Great Britain, "The Use of Drying Oils in the Paint and Allied Industries"; D. A. Brett, Great Britain, "Weighing and Sampling of Oilseeds"; and G. Coppola, Italy, "The Olive Oil Industry."

Soybean Dust Problems Solved by Sturtevant Air Separator

RIGHT: Spencer Kellogg & Sons employee making classification adjustment on Sturtevant Air Separator in operation at Bellevue, Ohio, soybean meal plant. Separator minimizes air-borne dust losses while removing hulls and classifying end product.

LEFT: Two lead-off chutes at bottom of Sturtevant Air Separator in Spencer Kellogg & Sons plant. One chute in the closed circuit system sends to packaging all uniform size, dust-free meal while the other returns all undersize fines for pelletizing.

Closed Circuit Air Separation Cuts Losses, Keeps Plant Cleaner, Improves End Product

Dust — finer than 80 mesh — was accounting for 4 to 5 percent of the soybean meal production at the Spencer Kellogg & Sons plant in Bellevue, Ohio. Much of this dust was disseminated into the air during processing, becoming a total loss. And such free dust made working conditions unpleasant, plant and storage sheds untidy in appearance. Also, the proportion of dust retained in the end product was an annoyance to farmers and ranchers.

All of these problems have been solved by a Sturtevant Air Separator operating in closed circuit with a pelletizing machine. The processed soybean meal goes through the Air Separator at the rate of about 85 tph. Particles representing dust and hulls go out the fines chute to the pelletizer. The pellets are then ground and re-circulated through the Air Separator at rates to 10 tph, bringing the machine's total capacity to 95 tph.

The net result is that Spencer Kellogg & Sons now has cut dust loss to a minimum, no longer has any air-borne dust problems, and is producing a better standardized, dust-free end product. Sturtevant, the pioneer in centrifugal air separation, has once again helped to solve a precision classification problem — *and without an expensive, multi-unit installation.* Write today for more information. Address: Sturtevant Mill Co., 144 Clayton St., Boston 22, Mass.

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No other single air separator can match Sturtevant's 40 to 400 mesh classification range at rates up to 100 tph. . . . and tested record of increasing mill capacities from 25 to 300% while lowering power consumption as much as 50% (when used in closed circuit with grinding mills). Nine models available, ranging from 3 to 18 ft. in diameter. Request Bulletin No. 087.

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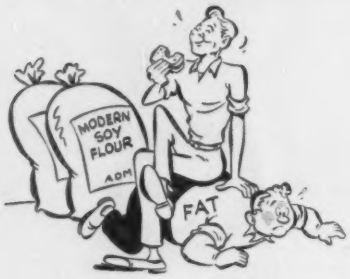
PUBLICATIONS

ADM Offers New Booklet on Soy Flour

SOY FLOUR is one of nature's richest sources of body-building proteins, says Archer-Daniels-Midland Co. in a newly published booklet.

Entitled "Soy Flour: Complement to Modern Eating," the booklet points out that pound for pound soy flour contains about twice as much protein as meat, four times as much as eggs and 12 times as much as milk.

In addition, continues the ADM book, soy flour improves foods, especially bakery goods, in various



ways. It retards staling and gives finer texture, richer colors and more tender crusts.

A number of institutions are turning to soy flour as an economical source of proteins and to raise dietary standards. The booklet cites a U. S. Agricultural Marketing Service report that "supplementing only 3 pounds of soy flour with every 100 pounds of meat and cereal products can mean a saving of about 3.4¢ per person per day" in institution feeding.

Copies of the booklet can be obtained from Archer-Daniels-Midland Co., 700 Investors Bldg., Minneapolis 2, Minn.

Louisiana Variety

THE BIENVILLE variety (La. 53-99) is being increased for release to soybean growers in 1958, according to John Gray, University of Louisiana research agronomist.

This variety covers the middles well and matures during the latter part of October at Baton Rouge. It produces seed well above the ground level, has good height and shows resistance to lodging and shattering.

The Bienville has averaged 40 bushels of seed per acre during the past 4 years at Baton Rouge. The yellow seed of medium size, 3,000 per pound, showed an oil content above 22% and a protein content above 40%.

Of the varieties grown for crushing, the Ogden, Lee, Roanoke and Jackson produced an average yield of approximately 30 bushels per acre during the 6-year period at Baton Rouge.

Soybean Research, Baton Rouge, La., 1956. By John Gray. Report of Projects Department of Agronomy for 1956. Louisiana Agricultural Experiment Station, Baton Rouge, La.

Chemical Modification of the Soybean Hemagglutinin. By Irvin E. Liener and Shohachi Wada, department of agricultural biochemistry, University of Minnesota. Journal of Biological Chemistry, No. 222, October 1956, pages 695-704.

Soybeans in Georgia. By J. R. Johnson, W. H. Gurley and J. Frank McGill. Circular 310, revised August 1956. Agricultural Extension Service, Athens, Ga.

Flame Cultivation. By E. B. Williamson, O. B. Wooten and F. E. Fulgham. Bulletin 545, July 1956. Mississippi Agricultural Experiment Station, State College, Miss.

For a complete list of books and experiment station publications relating to soybeans drop a postcard to Circulation Department. Soybean Digest, Hudson, Iowa.

Grain and Feed Statistics Through 1956. Statistical Bulletin No. 159, Agricultural Marketing Service, U. S. Department of Agriculture. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

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LETTERS

Comment on Split Beans

TO THE EDITOR:

I am most interested in the topic, "Broken beans are not foreign material," in Mr. Strayer's report from Tokyo in a recent Soybean Digest.

It is essentially correct. However, there are some more elements to be considered about split or broken soybeans in this country, especially in connection with tofu and miso manufacture. Tofu and miso groups request complete removal of soybeans split by threshing, otherwise tofu or miso become poor in quality and lower yields of the products. This fact is considered to be due to irregular softening with regard to whole and broken soybeans in the process of water soaking and cooking.

Generally speaking, oilseed crushers are not so strict about split or broken beans as tofu and miso manufacturers, in spite of the fact that the crushers are still obliged to reclean American soybeans to remove foreign materials such as dust, weed seeds, broken hulls and skins. Through this process a small portion of broken beans is also removed, although it would not be necessary when broken beans produce oil and meal.

Recleaning as mentioned above is especially needed to obtain meal suitable for miso and shoyu manufacture. This is really important in order to expand the demand for American soybeans, which are now and will be in the future in keen competition with Red Chinese soybeans. Loss by recleaning is approximately 3% or less, according to crushers' reports.

I have also noticed that broken particles of soybeans are often damaged by moisture in storage, with some shrinkage in weight resulting. —*Masazo Watanabe, Sapporo, Japan.*

Enjoys the Digest

TO THE EDITOR:

I surely enjoy the Soybean Digest. —*Obert Jeglum, Stewartville, Minn.*

THE COLUMBIAN BUILDING lost only a door and two roof panels. Note demolished concrete block walls of the masonry buildings on either side of the Columbian Steel Building.

CAUGHT IN THE KANSAS CITY TORNADO AND STILL STANDING—THIS STEEL BUILDING

MASTER-CRAFTED BY COLUMBIAN SINCE 1893

No building is deliberately designed to withstand 500 miles-per-hour winds. Yet, that's the crushing impact structures in the Ruskin Heights, Mo., were exposed to in the awful, shattering tornado of May 20, 1957.

The unretouched photos on this page tell their own story of what happened to a Columbian Steel Building caught in the fury of that black funnel. Two roof panels and the door were ripped off. Building contents remained safe and almost undisturbed.

800 other homes and businesses, including every other building in that block, were damaged or destroyed, their contents blown away or ruined.

Here's dramatic proof of the strength of Columbian Steel Buildings. Here's proof that in metal buildings, your best buy is always Columbian, for safety, service and economy.

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The recently completed Ruskins Heights, Mo. shopping center after the tornado. Columbian Metal Building at right.

Inside the Columbian building used as a hardware warehouse, merchandise remained almost unharmed.

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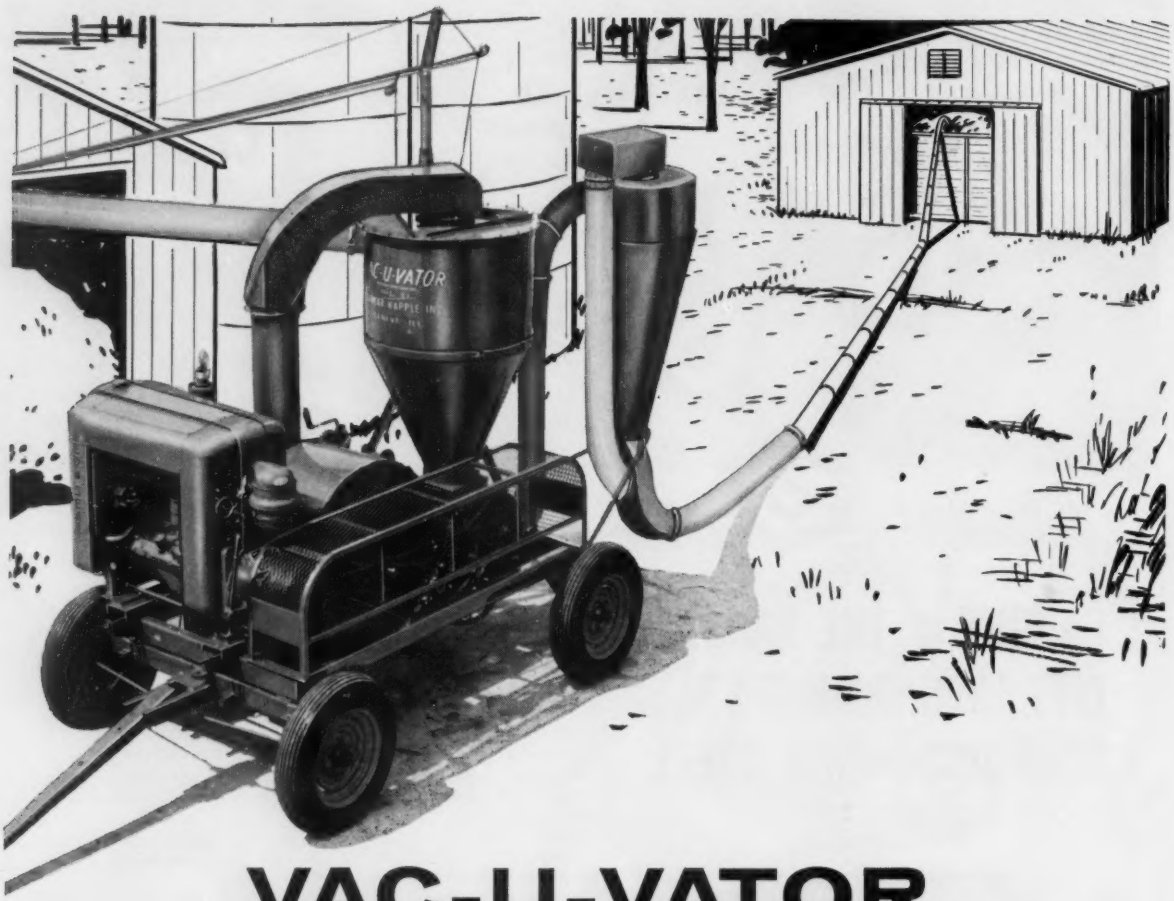

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LATE REPORTS

PROCESSING OPERATIONS. Reported by the Bureau of Census for April and May.

Primary products except crude oil at crude oil mill locations: Production, shipments and transfers, and stocks, May 1957-April 1957 (tons of 2,000 lbs.)

	Production		Shipments and transfers		Stocks end of month	
	May 1957	April 1957	May 1957	April 1957	May 31, 1957	Apr. 30, 1957
Soybean:						
Cake and meal	636,142	*649,950	634,959	*624,782	163,212	*162,029
Flour	8,452	9,173	8,670	9,251	4,528	4,746
Lecithin	1,452	1,463	(NA)	(NA)	1,573	1,546

* Revised. NA—not available.

Soybeans: Net receipts, crushings, and stocks at oil mills, by states, May 1957-April 1957 (tons of 2,000 pounds)

	Net receipts at mills		Crushed or used		Stocks at mills	
	May 1957	April 1957	May 1957	April 1957	May 31, 1957	Apr. 30, 1957
U. S.	528,626	*498,265	794,284	*819,827	740,344	*1,006,002
Illinois	190,977	157,034	273,902	288,307	244,264	327,189
Indiana	41,820	44,812	76,950	80,876	29,754	64,884
Iowa	103,693	82,794	115,929	112,188	68,701	80,937
Kansas	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky	(1)	13,275	21,290	19,617	(1)	(1)
Minnesota	59,937	*47,611	58,280	*61,871	15,349	*13,692
Missouri	30,215	8,790	29,319	30,307	42,362	41,466
Nebraska	(1)	(1)	(1)	(1)	(1)	(1)
N. Carolina	(1)	(1)	6,071	5,447	16,237	(1)
Ohio	46,393	33,093	77,972	80,472	74,966	106,545
Texas	(1)	(1)	(1)	(1)	(1)	(1)
All other	55,591	*110,856	134,571	*140,742	248,711	*371,289

1 Included in "All other" to avoid disclosure of figures for individual companies. * Revised.

Soybean products: Production and stocks at oil mill locations, by states, May 1957-April 1957

	Crude oil (thousands of pounds)				Cake and meal (tons)			
	Production		Stocks		Production		Stocks	
	May 1957	April 1957	May 31, 1957	Apr. 30, 1957	May 1957	April 1957	May 31, 1957	Apr. 30, 1957
U. S.	289,605	298,230	96,196	85,466	636,142	649,950	163,212	162,029
Ill.	104,101	107,908	26,725	25,559	216,387	221,730	70,497	61,128
Ind.	28,480	29,884	14,442	10,392	61,921	65,054	23,009	25,862
Iowa	41,832	40,046	13,747	14,147	95,916	92,660	13,194	19,219
Kans.	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ky.	7,863	7,216	976	783	16,926	15,543	(1)	912
Minn.	19,866	21,661	7,673	5,070	46,803	49,053	6,498	7,748
Mo.	10,624	11,200	3,954	3,963	23,981	24,942	2,951	3,177
Nebr.	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
N. Car.	1,978	1,560	956	418	5,181	4,035	3,303	1,723
Ohio	27,202	28,254	4,669	5,737	62,148	65,416	3,522	3,317
Texas	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
All other	47,659	50,501	23,054	19,397	106,879	111,517	40,238	38,943

1 Included in "All other" to avoid disclosure of figures for individual companies.

SUPPLY AND DISTRIBUTION of the 1953-56 soybean crops, reported by Agricultural Marketing Service (1000 bu.)

	1953-54	1954-55	1955-56	1956-57
Carryover, Oct. 1	10,134	1,345	9,949	3,731
Production	269,169	341,075	373,522	455,869
Total supply [1]	279,303	342,420	383,471	459,600
Farm use, including seed for season	25,160	24,000	30,000	30,000
Quantity remaining for processing, export, or carryover	254,143	318,420	353,471	429,600
Disappearance, October through May 31				
Crushed for oil or processed [2]	156,424	166,941	198,848[3]	219,261
Exported	36,292	46,006	55,483[3]	64,820
Total	192,716	212,947	254,331	284,081
Balance on June 1 for processing, export, or carryover	61,427	105,473	99,140	145,519

1 Imports negligible. 2 No allowance is made for new crop crushings prior to Oct. 1. 3 Data for May estimated.

Soybeans: Supply and disposition, crop year, 1951-56

Item	1951	1952	1953	1954	1955	1956[1]
	Year beginning October 1					
	million bushels					
Production	283.8	298.8	269.2	341.1	373.5	455.9
Total supply, Oct. 1	287.9	302.4	279.3	342.4	383.5	459.6
Less:						
Seed and feed [2]	22.9	26.0	25.1	22.8	29.6	30
Crushings, October-April	156.0	145.8	138.9	145.9	174.2	193
Exports, October-April	13.0	23.1	34.7	42.7	51.2	60
May 1, available supply	96.0	107.5	80.6	131.0	128.5	177
Crushings, May-Sept.	88.4	88.6	74.3	103.1	108.9	127
Exports, May-Sept.	4.0	8.8	5.0	18.0	15.9	20
Stocks, Sept. 30	3.6	10.1	1.3	9.9	3.7	30
October-September totals						
Crushings	244.4	234.4	213.2	249.0	283.1	320
Exports	17.0	31.9	39.7	60.6	66.8	80
	dollars					
Price per bushel						
Support	2.45	2.56	2.56	2.22	2.04	2.15
Received by farmers	2.73	2.72	2.73	2.46	2.22	[3]2.22

1 October-April is partly estimated. Disposition through the rest of the crop year is forecast. 2 Includes residual. 3 Preliminary.

OIL EXPORTS. A total of 202,528 metric tons of U. S. edible vegetable oils arrived in Spain under P. L. 480 in the period Aug. 4, 1955, through April 1957, reports the office of the Agricultural Attache at Madrid.

Of this amount, a total of 161,129 tons was soybean oil and 41,399 tons was cottonseed oil. All arrivals were reported in good condition and all were destined for food uses.

SHORTENING. Total shortening shipments reported by the Institute of Shortening & Edible Oils, Inc., in pounds.

May 25	29,548,809
June 1	28,268,735
June 8	25,402,834

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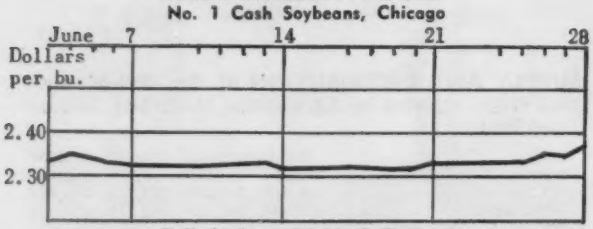
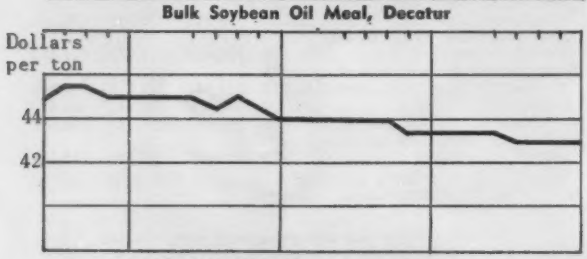
DAILY MARKET PRICES

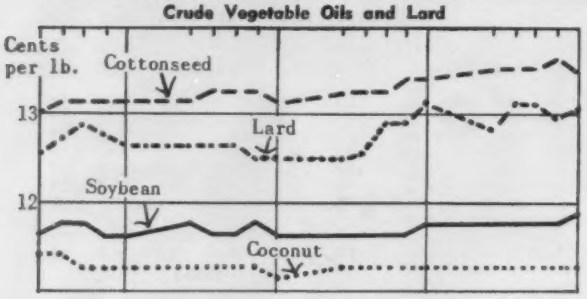
No. 1 Cash Soybeans, Chicago



Bulk Soybean Oil Meal, Decatur



Crude Vegetable Oils and Lard



June Markets

SOYBEAN prices remained close to the support level in June as Commodity Credit Corp. claimed a volume of defaulted 1956-crop beans.

Bulk soybean oil meal was off $2 for the month to reach the lowest level since World War II.

Soybean oil had periods of weakness but firmed up after passage of the new P. L. 480 bill and the start of shipments to Poland under the aid bill.

Two controlling factors in the markets were:

1—The unfavorable planting season. All evidence points to a larger soybean acreage than last year, but this is offset by prospect of lower yields. Markets tended to strengthen on reports of continued wet weather in main soybean producing areas.

2—The fact that a large supply of old crop beans, including those taken over by CCC, is still available. CCC sales of defaulted beans were brisk, however, and it was apparent that supplies will be considerably reduced by the end of the marketing year.

Favorable factors were the continued heavy rate of processing in the face of the unfavorable conversion ratio, and some pickup in export business following conclusion of the aid agreement with Poland and the passage of $1 billion in additional P. L. 480 funds. There was some increase in cargo space bookings for export shipments of soybeans out of New Orleans.

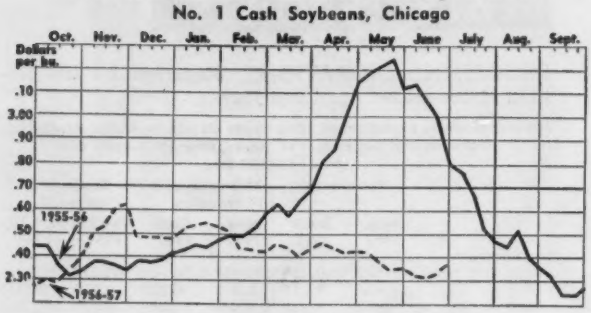
The government export programs for next year helped new crop futures.

Oil meals were in slow demand much of the month. Wall Street Journal noted that buyers have been operating hand-to-mouth all season despite the narrow range of prices.

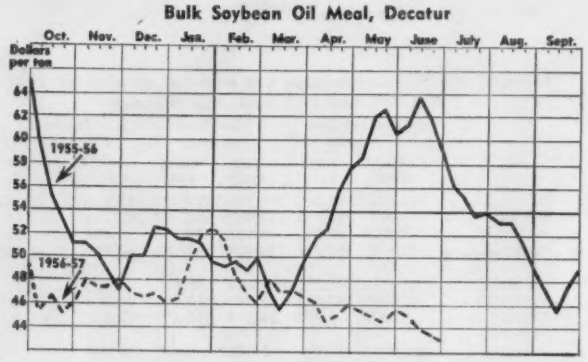
BYPRODUCTS. The price of soybean fatty acids advanced from 15¼¢ per pound to 15¾¢ during June.

TRENDS AT A GLANCE (Weekly Close)

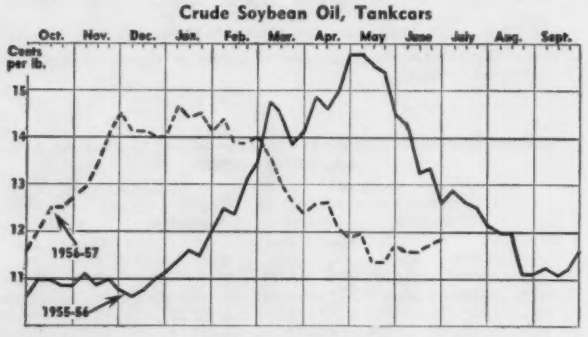
No. 1 Cash Soybeans, Chicago



Bulk Soybean Oil Meal, Decatur



Crude Soybean Oil, Tankcars



Acid soybean soap stock delivered Midwest advanced from 6⅝¢ to 6⅞¢, and raw soybean soap stock from 2¾¢ to 2⅞¢ per pound.

POSITION OF 1956 SOYBEAN CROP

	May 15, 1957	May 15, 1956
Total soybeans placed under government support	65,595,000 bu.	30,128,000
Total soybeans withdrawn from support	20,036,000 bu.	
Total remaining under support	45,559,000 bu.	
	1956-57	**1955-56**
Soybeans crushed Oct. 1-May 31	219,261,000 bu.	198,848,000 bu.
Exported Oct. 1-May 31	64,820,000 bu.	55,483,000 bu.
Balance on hand June 1 for processing, export or carryover	145,519,000 bu.	99,140,000 bu.
Total soybeans inspected for overseas shipment including lake shipments to Canada Oct. 1-June 21	68,398,012 bu.	56,838,737 bu.

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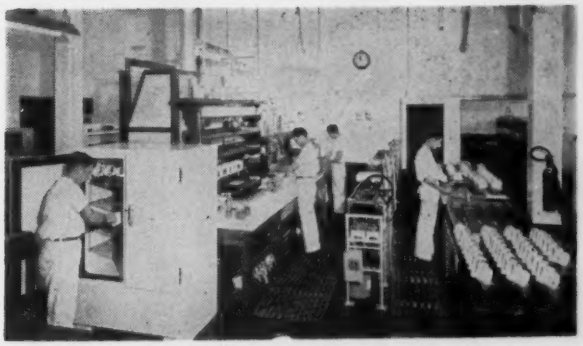

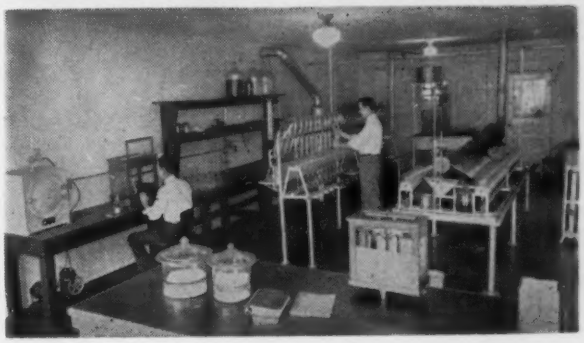

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Official Chemists for the Chicago Board of Trade

Official Chemists for National Soybean Processors Association

Main Offices: 265 South Front St., Memphis, Tenn.

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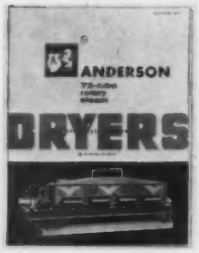
"Over a million samples analyzed since 1935."

One of a series of advertisements appearing in

NEW PRODUCTS and SERVICES

STEAM DRIER. The Anderson 72-tube Rotary Steam Dryer for accurately adjusting the moisture content of soybeans, grains and other non-sticky granular materials is fully described in a new Bulletin No. 457 recently published by the V. D. Anderson Co.

Typical drier itemizing operations for single drier units based on initial and final moisture content are given for cracked soybeans, whole kernel corn, whole flaxseed and a number of other products.



In addition, this four-page, two color bulletin describes in detail how material flows through the drier and is accurately controlled in moisture content.

Advantages of the Anderson Dryer unit also are given. These include:

1—Anti-friction, self aligning, roller bearings to assure smooth long operation.

2—Steam tubes connected to steam head at one end to permit expansion and contraction.

3—Large air intakes for adequate ventilation.

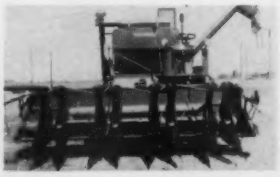
4—Heavy gage steel shell.

5—Rigid channel iron frames to assure stacking of driers without distortion and many other features.

For a complimentary copy write Soybean Digest 7a, Hudson, Iowa, and ask for Bulletin No. 457.

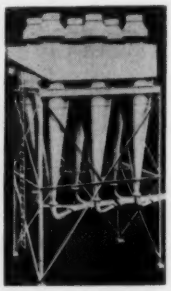
CROP SAVER. Recent field tests have proved that the new Hesston Row Crop Saver saves up to 90% of soybean pods usually left in the field. Tips of the Row Crop Saver can be run on the ground, thus getting under curled over beans, positively bringing them onto the platform. Loss of beans normally due to reel shatter is completely eliminated.

Installation is simple: The Row Crop Saver is simply bolted to the cutter bar and driven by present reel drive. Trouble-free operation is assured by sealed bearings throughout and few moving parts. It fits most combines.



For further information write Soybean Digest 7f, Hudson, Iowa.

COLLECTORS. A new, fully-illustrated folder on centrifugal collectors is now available from the Kirk & Blum Manufacturing Co. It describes in detail two new-design types, and explains the wide range of industrial applications for each in efficient air cleaning and dust collecting through centrifugal force.



Complete specifications for the 41 sizes of Kirk & Blum centrifugal collectors are included, as well as dimensional drawings. Valuable information on collector selection through determination of particle size, etc., is presented.

The Kirk & Blum Research and Development Center is pictured in the folder, together with typical applications for series "C" collectors throughout industry.

For a copy of the folder write Soybean Digest 7b, Hudson, Iowa.

DISC HARROW. A 10½-foot hydraulically controlled heavy-duty offset disc harrow-Model "K" has been announced by the farm equipment division, Allis-Chalmers Mfg. Co. It is designed for the power and traction of the company's WD-45 farm tractor.

This new implement provides 90 pounds of cutting weight for each of its 28 heavy-duty 22-inch blades. It is ideal for turning stubborn soils and for thoroughly chopping and mixing heavy stalks and other tough residues. Smooth blades are standard. Cutaway discs are available in any desired combination.

For further information write Soybean Digest 7e, Hudson, Iowa.

PRE-FAB BUILDING. Black, Sivalls & Bryson, Inc., announces a new line of BS&B Perfection prefabricated steel buildings for factory, farm and commercial use.

A sturdy, truss-type building with panel sidewalls and ends, the new Perfection is available in a variety of standard sizes and styles in regular increments up to 100 feet in width, 20 feet in height and unlimited lengths.

For further information write Soybean Digest 7d, Hudson, Iowa.

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BROKERS OF CRUDE & REFINED VEGETABLE OILS

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One of a series of advertisements appearing in **Business Week** as part of **Glidden Chemurgy's** continuing efforts to expand the market for soy products

SOYBEANS THAT WORK IN THE OFFICE

may be the key to improving your product

Soybeans are 'way past the dream stage . . . developed by Glidden Chemurgy to the point where they improve products and reduce production costs for the manufacturers of nearly everything around you. From air conditioners to leather upholstery, your office is almost completely furnished with products upgraded with Glidden soybean derivatives.

From food to transportation, there is hardly an industry that does not benefit from the use of a Glidden soybean derivative. The PAPER INDUSTRY, for example, employs Glidden-developed *Alpha® Protein* to improve the reproductive quality of all grades of printing paper. *Alpha Protein* helps produce whiter, more opaque paper for better reproduction . . . it also helps the manufacturer reduce production costs by permitting higher machine speeds thus increasing production. The printer benefits too, because *Alpha Protein* processed paper gives him faster press runs and reduces ink consumption.

And . . . Glidden is the *leading* soybean processor continuing operations beyond the crude products level to produce *special-purpose* derivatives that may help improve your product and reduce production costs. Call or write Glidden Technical Service for ideas and assistance.

HERE'S WHERE GLIDDEN SOYBEAN DERIVATIVES ARE AT WORK IN OFFICES:

AIR CONDITIONERS AND APPLIANCES
In rubber and plastic parts

CEILINGS AND WALLS
In insulation board and paint

FURNITURE
In leather upholstery

SUPPLIES
In paper and ink, varnish

DECORATIONS
In felt-base floor covering, and drapery textiles

PERSONNEL
In cosmetics, textiles

Glidden

CHEMURGY DIVISION

The Glidden Company
1825 N. Laramie Avenue • Chicago 39, Illinois

MANUFACTURERS OF INDUSTRIAL AND EDIBLE SOY FLOUR AND PROTEIN; CRUDE AND SPECIAL-PURPOSE LECITHINS; STEROIDS; SOYBEAN MEAL AND OILS.

On Trip to Bahamas

Mr. and Mrs. Edward Waddington, (left above) of Cedar Rapids, Iowa, receive congratulations and best wishes from William Earl, sales manager of **Prater Pulverizer Co.**, of Chicago, as they leave for an "all-expense-paid" vacation in the Bahamas, first prize in a sales incentive contest sponsored by the company.

Mr. Waddington, a sales engineer for Prater, manufacturer of equipment used in feed mills throughout the country, turned in the highest individual volume of sales of any of the company's salesmen during a 6-week period.

The Waddingtons enjoyed a full week of sight-seeing, deep sea fishing, and living a life of luxury at the British Colonial Hotel in the famous resort area at Nassau, Bahamas.

Amsco Elects Breton

Leon J. Breton was elected assistant vice president of **American Mineral Spirits Co.** by the directors following the annual meeting of stockholders at Chicago.

L. J. Breton

Before his election to assistant vice president Mr. Breton had been manager of market research and development for Amsco. Under the supervision of E. M. Toby, president, he has been responsible for the direction of market survey activities and consumer research in regard to solvents, petroleum derivatives and petrochemicals.

His headquarters have been at Amsco's Chicago office since September 1955.

Before coming to Chicago, Mr. Breton was manager of Amsco's metropolitan division at the company's eastern headquarters.

Howes Appointments

Richard P. Wesley

George R. Willis

Richard P. Wesley has been made vice president in charge of sales of **S. Howes Co.** and George R. Willis, sales manager of the Silver Creek, N. Y., firm.

With Howes as a sales engineer since 1955, Mr. Wesley has been engaged principally in the design of complete feed mills. For 25 years, he has been actively associated with the milling industry in maintenance, construction and management capacities.

Mr. Willis has been a Howes sales representative since 1955, and has been active in New England and northern Pennsylvania. His father, John T. Willis, has been active with Howes for over 30 years.

Davidson-Kennedy V-P

Davidson-Kennedy Associates Co., designers and constructors of chemical plants, have announced the appointment of H. M. Betzig as vice president-engineering.

H. M. Betzig

Mr. Betzig joined the chemical plants division of Blaw-Knox Co. in 1946, serving as project engineer and then as principal engineer in the Chicago office.

In his new assignment with Davidson-Kennedy Associates Co. he will direct the engineering and project management activities as well as personnel recruitment.

Chase Bag Co., New York, N. Y., has elected to its board of directors: William N. Brock, vice president and general sales manager; Leland S. Brown, vice president of the First National City Bank of New York; and Francis H. Ludington, Jr., vice president of Chase in charge of production and engineering.

BLAW-KNOX COMPANY

architects
engineers
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of complete plants and units
for the extraction and processing
of vegetable oils

May we talk with you about developing a new process . . . low cost modernization and expansion of existing facilities . . . a new plant?

The Blaw-Knox Rotocel, outstanding achievement in solvent extraction, has successfully passed the pioneering stage. Operating installations now have a combined annual capacity in excess of 4,000,000 tons. Write for new Bulletin 2515, *Blaw-Knox Plants and Processes for the Fats and Oils Industry.*

BLAW-KNOX

BLAW-KNOX COMPANY
Chemical Plants Division
Pittsburgh 22, Pennsylvania • Chicago 1, Illinois
Birmingham • New York • Philadelphia • San Francisco • Washington, D.C.

Heads Produce Exchange

Samuel R. Strisik, S. R. Strisik Co., was elected president of the New York Produce Exchange June 3. He succeeds John D. Allen, senior partner, Allen Shipping Co.

Samuel R. Strisik

James A. O'Neill, Continental Grain Co., was elected vice president; and Sidney Fashena, I. Usiskin Co., treasurer.

Elected to the board of managers for 2-year terms were: Edward J. Charbonneau, Louis Dreyfus Corp.; James V. Cullen, Superintendence Co., Inc., Thomas F. Gowdy, T. F. Gowdy Co.; Andre Herschler, Bunge Corp.; George S. Kohl, United States Lines; and Otto F. Rehders, H. Lentz & Co.

The eastern representative of the Port of Mobile with offices at 25 Broadway, New York, has been filled by Howard T. Whipple, Jr., former freight sales representative of American President Lines, according to M. C. Cunningham, general manager and director of traffic of the **Alabama State Docks.** The Alabama State Docks is the ocean terminal owned and operated by the state of Alabama at its only seaport of Mobile.

The appointment of Sam Hunt, Minneapolis, to the grain merchandising division of **Central Soya Co.,** Fort Wayne, Ind., has been announced. He has been associated with Cargill, Inc. His activities include all phases of grain merchandising and soybean buying.

Dr. William J. Sparks, scientific adviser for the Esso Research and Engineering Co., Linden, N. J., has accepted appointment for the **Southern Utilization Research and Development Division** of Agricultural Research Service, U. S. Department of Agriculture. He will confer with staff members on research to improve the utilization of vegetable oils and pine gum.

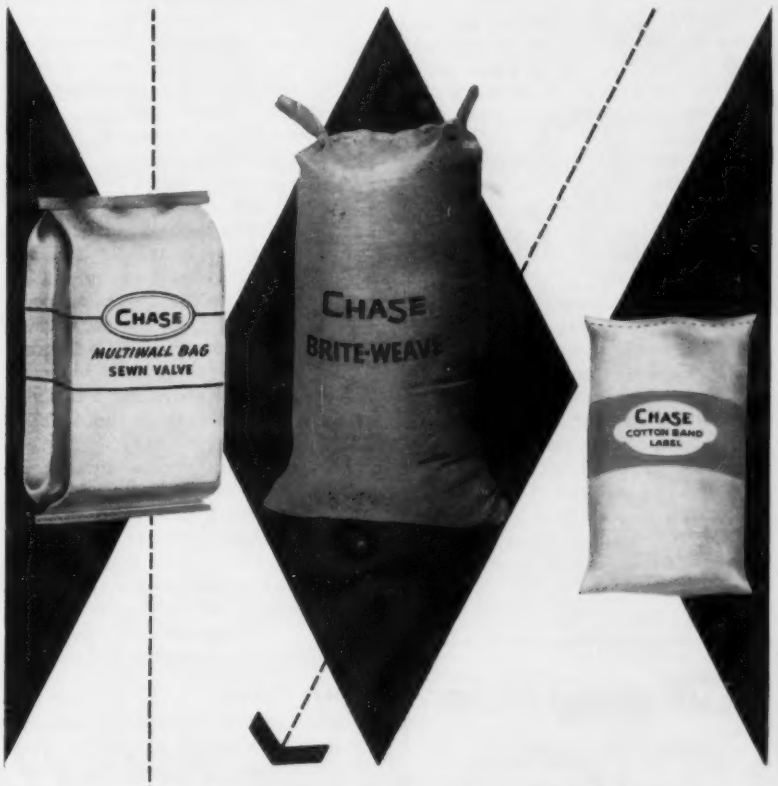
Harry A. Bullis, chairman of the board, **General Mills, Inc.,** was recently one of 10 to receive "American Success Story" awards from Free Enterprise Awards Association.

Frieda Page Roach (Mrs. Howard) Plainfield, Iowa, was recently awarded an honorary doctor of laws degree by Cornell College, Mt. Vernon, Iowa, in recognition of a lifetime of leadership and work in the Baptist Church. She is president of the National Council of American Baptist Women. Her husband is president of the Soybean Council of America, Inc.

Dupuy Bateman, vice president and director, **Anderson, Clayton & Co.,** Houston, Tex., was elected presi of the National Cottonseed Products Association at its recent convention in Washington, D. C.

Roland G. Nelson, a successful feed dealer for 21 years, has been named a representative for **Prater Pulverizer Co.** He lives on a farm at Plainfield, Ill., and his territory will be the 21 northern counties of Illinois. A one-time officer of the Illinois Feed Association, he operated a feed mill in Elgin, Ill., and a feed store at Lamont, Ill. He has been using Prater equipment in his plants for many years.

James W. Moore, manager of the crude oils department of the **A. E. Staley Manufacturing Co.** soybean division, Decatur, Ill., was one of 10 or 12 Americans at the Congress of International Oil Seed Crushers in Italy in June.



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WASHINGTON DIGEST

USDA to Push New Export Program

By PORTER M. HEDGE
Washington Correspondent for The Soybean Digest

PRIORITIES and possibly quotas will have to be imposed on commodities moving into export under the new $1 billion Public Law 480 program just approved by Congress for the coming year.

This will be necessary, say officials, to prevent a few of the big export crops such as wheat and cotton from gobbling up most of the additional funds.

Officials say they could use as much as $2 billion in additional funds during the year if the export program were kept as active as it has been during the fiscal year just closed.

Some countries want 3-year programs. Pakistan is one of these. Some other countries want 2-year programs. However, these are out of the question in view of funds available to date.

There is no official indication as to what priority fats and oils products might carry in the new program. However, any priority would be fairly high in view of the big demand for oils by some countries.

All of the additional fats and oils programmed out of the new $1 billion will be allocated before the end of the year, USDA says. After that it is expected there will be pressures for additional funds, probably from Congress.

They are not likely to come from USDA itself. Secretary of Agriculture Benson views the 480 program as an emergency one which if extended indefinitely might encourage output of greater volume.

In this he will clash again with Senator Hubert Humphrey of Minnesota. The Minnesota senator has become a champion of P. L. 480. He sees it both as an instrument of promoting U. S. foreign policy, and as a means of supporting farm prices. He quotes USDA as giving the following estimates of price effect resulting from the 480 program:

Soybean and cottonseed oils raised about 1½¢ to 2¢ a pound by the 480 program in 1955, about 2¢ in 1956. Prices of lard and tallow are estimated to have been lifted about a cent in 1955, and nearly 2¢ in 1956.

Farm prices of soybeans would have rested at the price support levels for those years without the help of the 480 program. The figures estimate prices of the 1955 soybean crop were lifted about 15¢ a bushel, and for the 1956 crop about 7¢ a bushel.

Senator Humphrey is now pressing for $1¼ billion to be added to foreign aid funds for use in moving additional farm surpluses. This is not considered likely to go through now in view of current budget talk. However, there is no telling what the situation may be like by the time Congress reconvenes next January.

Export Picture

USDA reports of exports continue to present a bright picture for fats and oils totally. However, trade representatives here continue to talk bearish and express disappointment in the export outlook for the balance of this year.

USDA has hiked its estimate of total food fats and oils exports for the year ending Oct. 1. An estimate of a little under 1.2 billion pounds in exports was made last fall. This has been raised to 1,285 million pounds. The latter figure is based on exports in sight just before the extra P. L. 480 money was approved. It included none of this new money.

The $95 million approved to finance export of farm products to Poland includes approximately 5½ million pounds of soybean or cottonseed oil, 2.2 million bushels of soybeans, and 33 million pounds of inedible tallow.

The soybeans are financed out of funds being loaned to the Polish government, and the oil and tallow out of $18 million in residual funds from the last r. .. 480 program.

CCC Takeover

The volume of soybeans taken over in price support operations on the 1956 crop won't be known until mid-August, but it's estimated to be anywhere from 30 to 35 million bushels.

This was the calculation of officials in late June just ahead of the time reports of price support activities came in from the major soybean states.

At mid-May the price support figures indicated there were close to 20 million bushels of soybeans in warehouses, and not far from this total still under loan on farms.

Some additional beans were expected to be redeemed during the balance of June so that the automatic takeover of warehouse-stored loan beans would total less than 20 million.

It normally takes 2 months to clean up farm-stored beans, and if prices are favorable during this period more farm redemptions are expected. There also was disagreement as to the actual supply of beans on hand, many officials thinking that either the spring stocks figure or the crop estimates was too high.

Commodity Credit sale of soybeans taken over in price support operations totalled nearly 7 million bushels during the first 20 days of June. This volume was a little higher than had been expected earlier in the season.

The Chicago CCC office sold a total of 4,761,800 bushels during the early takeover period. Prices ranged from a low of $2.18½ in Iowa to a high of $2.28 in Illinois during this period.

The Minneapolis regional office sold 1,235,318 bushels through June

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The World's Finest Grain Drier
- DRYING CAPACITIES — up to 2,000 Bushels Per Hour in Self-Contained Units
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20, Kansas City office 544,603 bushels, and the Dallas office 96,779 bushels. Total for all regional offices through June 20 was 6,638,500 bushels.

Sale of 2,013,200 bushels in Illinois topped the total for any state. Iowa came next with 1,210,300 bushels. Ohio sales were 750,000 bushels and Indiana 761,000. Sales in Kentucky amounted to 27,300.

Industry Suggestion

Fats and oils industry representatives have recommended that the government take such measures as it can within the limit of funds to improve its figures on disappearance of food fats and oils.

Industry technicians met with government men here in late June. Main object was to try to find out first, whether food fat disappearance actually has gone down as the figures indicate, and second, if so how come? No conclusions were arrived at.

Preliminary figures for 1956 show a disappearance of food fats and oils of 44.4 pounds a person against 45.5 pounds the year before. Industrial fats also were down — from 20.4 pounds in 1955 to 19.9 pounds last year.

The Foreign Agricultural Service has just issued a circular on world soybean production and trade. It gives the figures you would expect — supply, production, distribution, yields, exports, imports, etc.—for all the important countries.

Circular is available by writing Foreign Agricultural Service, U. S. Department of Agriculture, Washington 25, D. C., and asking for its circular, FFO 7-57.

Japan Plans Larger Imports for 1957

JAPAN'S PROGRAM for the 1957 fiscal year, which began Apr. 1, calls for soybean imports of 31.2 million bushels (850,000 metric tons), 10% more than the revised fiscal 1956 program, reports USDA's Foreign Crops and Markets. As a result, imports of soybeans in calendar 1957 may approach the record of nearly 30 million bushels (808,177 tons) imported in 1955.

The larger import program reflects the poor 1956 Japanese crop and an expected rise in consumption.

The United States is expected to continue to provide the bulk of Japan's soybean imports as in recent years, particularly since U. S. soybean prices are quite competitive with export prices asked for Chinese beans. Japan's growing foreign exchange difficulties give rise to the possibility that the government may decide to import Chinese beans on barter account, rather than under the "global foreign currency allocation system."

Soybeans: Japanese import program, Japanese fiscal years, beginning Apr. 1, 1956 and 1957

Program breakdown	1956 [1]	1957 1st half [2]	1957 2nd half [2]	1957 Total
Under foreign exchange allocation:	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
Oil crushing	438	295	305	600
Food	201	70	70	140
Feed [3]	86	35	35	70
Oil exports	20	10	10	20
Automatic approval [4]	20	10	10	20
Total [5]	765	420	430	850

[1] Revised Oct. 1, 1956. [2] Preliminary. [3] Cake used for feed. [4] From Brazil, for all uses. [5] Excludes quantities to be imported for manufacture of monosodium glutamate and soy sauce for export, estimated at 15,000 tons. Source: Ministry of Agriculture and Forestry.

SOYBEANS

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"GIANT" in market PROFITS!

If YOU want to make money—BIG MONEY—out of SOYBEANS—WHEAT — CORN — COFFEE — COTTON — STOCKS—our twice-a-week TUESDAY and FRIDAY letters will give you EXPERT ADVICE backed by 38 years EXPERIENCE. We have been studying markets since 1918. Our service started business Feb. 1, 1928—now in 28th year!

SUBSCRIBERS WRITE: "Have taken over $100,000 profit out of commodity trades the past two years, because of your service." KANSAS.—"Your advices nearer correct than any I ever followed." GA.—"Best service I ever have taken." OHIO.—"I started on a shoe string—have made nice profits on your advice. Your service is TOPS." NEBR.—"Have subscribed to several commodity advisory services—honestly believe YOURS the BEST I have EVER seen." ALA.—"Your ACCURACY in forecasting is AMAZING to me." KANSAS.—"Find check for $25 for 3 months renewal.—You certainly hit every turn of the market right 'on the nose'. I stuck with another service for 6 months and lost $7,000. By using your advice I'm beginning to climb out." IOWA.—"Several people whose names I sent you are taking your service and MAKING MONEY. One made about $26,000 last year on $5,000 to begin with. Had to pay Uncle Sam $12,000, which 'hurt' him."—N. C. BROKER.—"A friend told me that on your advice during past 3 weeks he made over $5,000 on JULY soybeans." CALIF. —"Have taken thousands of dollars from the market on your advice—believe it entirely possible to average $1,000 per month." MICH.—"Had over 10 different services—must say YOURS TOPS THEM ALL.—If you get customers from Minnesota and Dakotas, that's a plug from ME. My year's renewal speaks for itself." IOWA.—Did so WELL on your MARVELOUS advice, here's $100 bill as 'thank you' present." MASS.

"Following YOUR market advices—tops in my opinion—have taken $5,000 profit in SOYBEANS in past 3 WEEKS." LA.

"Sure did WONDERFUL with that $5 subscription—OVER $3,000 PROFIT so far, and if I had gone along on first couple of letters, would have done much better." OHIO.

"Am another satisfied customer. Made enough on JULY beans, FIRST WEEK I took service, to pay for service REST OF MY LIFE, and I figure on living a LONG time yet." IOWA.

"In 28 years in grain business, YOUR commodity-stock service was FAR THE BEST used during that period." NEBR.

"Get Acquainted" Offer

Our next TEN Tuesday and Friday letters, covering SOYBEANS, WHEAT, CORN, COFFEE, COTTON and STOCKS, $5.00. (Please use order blank below.)

Market Advisory Bureau

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SPECIAL $5.00 OFFER TO "SOYBEAN DIGEST" READERS

Send EVERYTHING mentioned above via air mail. Enclosed $5.00 in full payment.

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- MARKET STREET -

We invite the readers of THE SOYBEAN DIGEST to use MARKET STREET for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here.

Rate 10c per word per issue. Minimum insertion $2.00.

WANTED: FLAKING AND CRACKing rolls, meal coolers and driers and rollermills. Soybean Digest, Box 319-J, Hudson, Iowa.

FOR SALE—NEW OR USED 80600E or 806000H sewing machine heads, Whizzer conveyors, bagging scales and bins. Write Winborn, Williamsburg, Iowa.

STEEL GRAIN BINS—18 FT. x 16 ft. surplus government type steel bins, new, approximately 3,500 bushels capacity, available for your surplus storage problems. For particulars write: Midwest Steel Products Co., 121B Railway Exchange Bldg., Kansas City 6, Mo.

FOR SALE—SEEDBURO STEINlite grain moisture tester, factory rebuilt, one year guarantee. Exclusive distributors Seedburo Equipment Co., 613 W. Jackson Blvd., Chicago 6, Ill.

FOR SALE — 72-INCH FRENCH cookers, 10 x 42 three high cracking rolls, Anderson coolers, driers and Expellers, cake breakers, meal grinders, boilers, sewing machines. Ray L. Jones, 2222 Oakview Drive, Jefferson City, Mo.

NEW AND USED PORTABLE FEED mills. H. L. Myers, Route 3, Alliance, Ohio. Phone 7044.

IN THE MARKETS

P. L. 480 EXPORTS. About 655 million pounds of cottonseed and soybean oils have been programmed to date through June 5 for export under Title I of P. L. 480 during the 1956-57 marketing year, reports Foreign Agricultural Service. This is 16% more than was shipped during the preceding marketing year. Program exports in October 1956-April 1957 totaled 411 million pounds, and about 245 million remained to be shipped after Apr. 30, 1957. In addition, about 63 million pounds of lard, about 10 million pounds of edible oils and/or lard, 49 million pounds of tallow and 1 million pounds of linseed oil also remained to be shipped under Title I programs.

P. L. 480 became effective on July 1, 1954.

Cottonseed and soybean oils: Total exports and the quantity shipped under Title I, P. L. 480 programs (million lbs.)

Period	Cottonseed oil		Soybean oil		Cottonseed and soybean oils	
	Title I	Total	Title I	Total	Title I	Total
Oct. 1954-Sept. 1955	117	[1] 710	.....	50	117	760
Oct. 1955-Sept. 1956	289	[1] 611	279	556	568	1,167
Oct. 1955-April 1956	167	381	117	264	284	645
Oct. 1956-April 1957	26	314	385	603	411	917
Total	432	1,635	664	1,209	1,096	2,844

[1] Includes donations (30 million in 1954-55 and 6 million in 1955-56) from CCC stocks to private charitable agencies for distribution abroad, which were not included in Census data. Includes actions through June 5, 1957.

Exports of fats and oils under Title I, P. L. 480 in October 1956-April 1957 (million lbs.)

Country	Edible oils					
	Cottonseed	Soybean	Total	Lard	Tallow	Linseed oil
Chile		52.6	52.6			
China, Rep. of					10.1	
Ecuador	.9		.9			
Greece		41.0	41.0			
Israel					1.1	
Italy		112.0	112.0			
Pakistan						0.3
Paraguay	2.0		2.0	1.5		
Spain		165.9	165.9		13.4	3.3
Turkey	22.8		22.8		15.7	
Yugoslavia	.2	13.6	13.8	41.9	12.4	
Total	25.9	385.1	411.0	43.4	52.7	[1] 3.6

[1] 3.9 million since July 1, 1956, the beginning of the present marketing year for linseed oil.

PRICE SUPPORT. 1956-crop soybeans put under price support and loans repaid and total deliveries as of May 15. Reported by Agricultural Marketing Service, USDA (1,000 bu.)

Warehouse and farm loans			Purchase agreements		
Total under loan	Quantity repaid	Quantity delivered to CCC	Quantity under agreements	Quantity producers elected to deliver	Quantity delivered
59,690	20,036	[1]	5,905	[1]	[1]

[1] Not yet available.

FACTORY USE VEGETABLE OILS for March and April. Reported by Bureau of the Census (1,000 lbs.)

Factory production and consumption, and factory and warehouse stocks, April 1957-March 1957

Primary materials	Factory production		Factory consumption		Factory and warehouse stocks	
	April 1957	March 1957	April 1957	March 1957	April 30, 1957	March 31, 1957
Cottonseed, crude	99,742	139,383	96,151	113,689	116,696	142,267
Cottonseed, refined	90,323	106,524	100,139	109,669	277,876	285,071
Soybean, crude	293,635	313,006	225,617	233,134	171,912	150,434
Soybean, refined	213,476	220,333	207,436	210,687	97,212	97,821
Vegetable foots, 100% basis	15,236	17,008	12,775	13,289	44,697	44,704
Secondary materials						
Hydrogenated vegetable oils—						
Edible:						
Cottonseed	33,116	38,880	31,408	34,564	17,686	21,937
Soybean	94,872	83,923	89,593	78,726	38,620	38,614
Other	7,044	7,908	4,751	4,359	3,716	3,826
Inedible	[1]	[1]	1,830	1,288	1,948	1,840

[1] Not shown to avoid disclosure of figures for individual companies.

Factory consumption of vegetable oils, by uses, during April 1957

	Edible products			Inedible products			
	Shortening	Margarine	Other edible	Soap	Paint and varnish	Lubricants and similar oils[1]	Other inedible[2]
Cottonseed, crude	.....	.....	.....	.....	.....	[3]	.....
Cottonseed, refined	8,654	2,934	1,704	[3]	[3]	[3]	178
Soybean, crude	.....	.....	.....	[3]	531	[3]	1,646
Soybean, refined	30,589	6,941	2,934	[3]	7,170	18	7,845
Foots, vegetable raw and acidulated (100% basis)	.....	.....	.....	2,396	117	528	1,555
Hydrogenated vegetable oils, edible:							
Cottonseed	11,631	17,645	.....	.....	.....	.....	.....
Soybean	23,204	64,669	1,672	.....	.....	.....	[3]
Other	1,496	.....	1,162	.....	.....	.....	.....

[1] Includes quantities consumed in lubricants, greases, cutting oils, dielectric oils, core oils, brake fluids, and metal working. [2] Quantities consumed in linoleum and animal feeds are included in the above totals. Data for fats and oils consumed in chemicals and linoleum and oilcloth, which were previously shown separately, are now included in "Other inedible" while quantities consumed in core oils, cutting oils, brake fluids, dielectric oils, and metal working, formerly included in this total, are now classified in "Lubricants and similar oils." [3] Not shown to avoid disclosure of figures for individual companies.

Consumption of fats and oils in fat splitting

	1957			1956	
	April	March	Jan.-Apr. Cumulative	April	Jan.-Apr. Cumulative
Soapstocks					
Vegetable foots	6,871	7,864	29,187	8,954	36,875

Source: U. S. Census Bureau

PRICES. Average prices for soybeans received by farmers, effective parity, and support rate, reported by Agricultural Marketing Service (dollars per bushel)

Average farm price			Effective parity	Av. price as percent of parity	National average price support rate		
May 15, 1956	Apr. 15, 1957	May 15, 1957	May 15, 1957	May 15, 1957	1955 crop	1956 crop	1957 crop
2.98	2.24	2.23	3.02	74	2.04	2.15	2.09

[1] Minimum support rate. Average farm and parity prices from crop reporting board.

EXPORTS. Preliminary data on U. S. exports of soybeans and soybean oil for April 1957, with comparable data for April 1956 and cumulative totals for the marketing years 1955-56 and 1956-57, reported by Foreign Agricultural Service, U. S. Department of Agriculture.

		April		October-April	
	Unit	1956	1957	1955-56	1956-57
Soybeans	bu.	5,106,327	5,726,311	51,153,020	59,819,594
Soybean oil:					
Crude	lb.	314,450	38,504,108	20,687,480	263,760,262
Refined but not further processed	lb.	4,248,168	6,930,405	42,374,746	37,742,181
Refined deodorized and hydrogenated	lb.	27,066,414	27,615,809	201,020,313	301,167,087
Total beans and oil, oil equivalent basis	lb.	87,696,502	135,925,217	825,742,699	1,259,488,672

	March		October-March	
Corrections	1956	1957	1955-56	1956-57
Total beans and oil, oil equivalent basis (lb.)	63,245,290	188,995,573	738,046,196	1,118,468,713

Domestic exports calendar years 1955 and 1956

		Year ended Dec. 31			
		Quantity		Value	
Commodity exported	Unit	1955 Thousands	1956 Thousands	1955 1,000 dollars	1956 1,000 dollars
Oil cake and oil-cake meal—					
Cottonseed	Ton	239	61	14,364	3,703
Linseed	Ton	108	112	6,744	6,802
Peanut	Ton	3	31	151	1,917
Soybean	Ton	303	431	20,294	26,000
Other	Ton	0	0	0	0
Total oil cake and meal	Ton	653	635	41,553	38,422
Oilseeds:					
Copra	Lb.	128	78	10	6
Cottonseed	Lb.	43,763	28,128	3,918	2,481
Flaxseed (56 lb.)	Bu.	4,706	8,576	15,930	32,056
Soybeans (60 lb.)	Bu.	67,843	68,561	174,455	177,612
Other oilseeds	Lb.	31,213	35,558	1,556	2,253
Total oilseeds				195,869	214,408
Soybean oil—					
Crude	Lb.	8,553	159,546	1,042	23,026
Refined—					
Not further processed	Lb.	30,315	67,192	4,460	10,507
Deodorized and hydrogenated	Lb.	95,616	452,431	15,028	73,046
Total soybean oil	Lb.	134,484	679,169	20,530	106,579
Soybean flour, edible	Lb.	4,887	5,130	325	318

Foreign Agricultural Service statistical report for calendar year 1956. Figures for 1956 are preliminary. [1] Beginning Jan. 1, 1955, includes winterized.

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Soybeans: Inspections for overseas export by coastal areas and country of destination, May 1957 (4-week period ended May 31) (1,000 bu.)

	Soybeans		Soybeans
Atlantic		Japan	1,573
Holland	242	France	56
West Germany	131	Formosa	351
United Kingdom	112	Other	1
Norway	97	Subtotal	2,964
Subtotal	582	**Lake Ports**	
Gulf		Canada	761
Belgium	140	Grand total	4,307
Holland	383	Total Jan.-May 1957	29,263
West Germany	445	Total Jan. May 1956	21,814
Italy	15		

Note: Data are based on weekly reports of inspections by licensed grain inspectors for overseas export and do not include rail or truck movement to Canada or Mexico. In some cases the ultimate destination of the grain exported is not shown on the inspection reports, therefore, the quantity of each country may vary from official census data which are based on custom declarations.

OILSEED MEALS. Oilseed meal consumption the first half of this season, at 5.5 million tons, was the largest on record and around 500,000 tons above the same period last season and the 5-year average, reports Agricultural Marketing Service. Record consumption of 3.6 million tons of soybean meal accounted for most of the increase and was 570,000 tons above the same period a year earlier. Consumption of other oilseed meals was somewhat above last year.

Oilseed meal exports of 362,000 tons during the first 6 months of the season were 126,000 tons below a year earlier. An increase of around 44,000 tons in soybean meal exports was more than offset by sharply reduced linseed and cottonseed meal exports.

Oilseed meals: Production, stocks, foreign trade and domestic disappearance, October-March 1955-56 and 1956-57 (1,000 short tons)

	Stocks Oct. 1[1]	Production	Imports	Exports	Domestic disappearance	Stocks Mar.31[1]
October 1955-March 1956						
Oilseed meals:						
Soybean	37.2	3,427.0	0	247.9	3,038.3	178.0
Cottonseed	150.2	1,854.6	19.7	140.6	1,633.2	250.7
Linseed	21.7	371.5	0	99.0	264.4	29.8
Peanut	0.5	21.8	0	0.8	15.4	6.1
Copra	3.9	55.5	26.6	[2]	85.0	1.0
Total	213.5	5,730.4	46.3	488.3	5,036.3	465.6
October 1956-March 1957						
Oilseed meals:						
Soybean	111.3	3,925.7	0	292.0	3,608.4	136.6
Cottonseed	140.9	1,673.0	29.1	25.7	1,553.3	264.0
Linseed	11.8	319.6	0	34.3	274.2	22.9
Peanut	1.9	34.3	0	9.8	18.9	7.5
Copra	1.3	59.1	34.8	[2]	94.1	1.1
Total	267.2	6,011.7	63.9	361.8	5,548.9	432.1

[1] Stocks at processing plants only. [2] Not available.

During October-March a total of 5,505,000 tons of the five major oilseed meals was fed to livestock, 500,000 tons or 10% more than in the same period of 1955-56. A total of 6,012,000 tons of oilseed meals was produced in the first 6 months of the 1956-57 feeding year, 280,000 tons more than in the same period of 1955-56.

The greater increase in the quantity fed than in production resulted from a 126,000-ton reduction in exports and a less rapid buildup in stocks during the first half of the current feeding year than in 1955-56.

High-protein feeds: Estimated use for feed, year beginning October, average 1950-54, annual 1951-56 (1,000 tons)

	Average 1950-54	1951	1952	1953	1954	1955	1956[1]
Soybean cake and meal	5,452	5,640	5,510	4,965	5,428	6,042	7,000
Cottonseed cake and meal	2,501	2,650	2,671	2,926	2,405	2,511	2,325
Linseed cake and meal	549	520	478	526	488	439	450
Peanut cake and meal	71	99	44	63	18	26	60
Copra cake and meal	208	220	213	196	182	160	165
Total	8,780	9,129	8,916	8,676	8,521	9,178	10,000

[1] Preliminary estimates based on indications in May.

Oilseed meals: Production in 1,000 tons

	Monthly production April 1957 preliminary	Monthly production March 1957	Monthly production April 1956	Season's production Oct.-Apr. 1956-57	Season's production Oct.-Apr. 1955-56	Season's production Oct.-Sept. 1955-56
Soybean meal	639.8	688.5	583.6	4,565.5	4,010.5	6,545.8
Cottonseed meal	135.7	192.4	179.4	1,808.8	2,034.0	2,628.1
Linseed meal	27.8	47.3	40.2	347.4	411.7	581.7
Peanut meal	5.4	5.0	7.5	39.8	29.3	57.5
Copra meal	9.5	9.1	9.3	68.6	64.9	112.2
Total oilseed meals	818.2	942.3	820.0	6,830.1	6,550.4	9,925.3

Agricultural Marketing Service.

Oilseed cake and meal: Supply and distribution, October-March, 1955-56 and 1956-57 (1,000 tons)

Oilseed meal	Stocks Oct. 1	Production	Imports	Total supply	Feed	Other uses	Exports	Stocks Apr. 1[1]
				1955-56[2]				
Soybean	37	3,427	0	3,464	3,026	12	248	178
Cottonseed	150	1,855	20	2,025	1,607	27	140	251
Linseed	22	372	0	394	265	—	99	30
Peanut	1	22	5	28	21	—	1	6
Copra	4	56	27	87	86	—	0	1
Total	214	5,732	52	5,998	5,005	39	488	466
				1956-57[2]				
Soybean	111	3,926	0	4,037	3,596	12	292	137
Cottonseed	141	1,673	29	1,843	1,526	27	26	264
Linseed	12	320	[3]	332	275	—	34	28
Peanut	2	34	0	36	18	—	10	8
Copra	1	59	35	95	94	—	[3]	1
Total	267	6,012	64	6,343	5,509	39	362	433

[1] Stocks at processors' plants. [2] Preliminary. [3] Less than 500 tons.

STOCKS. Agricultural Marketing Service's commercial grain stocks reports for close of business on Friday or Saturday preceding date of report (1,000 bu.)

	May 28	June 4	June 11	June 18
U. S. soybeans in store and afloat at domestic markets				
Atlantic Coast	758	602	744	772
Gulf Coast	517	423	749	1,203
Northwestern and Upper Lake	222	1,323	211	181
Lower Lake	2,740	3,108	3,413	3,154
East Central	694	639	591	570
West Central Southwestern and Western	164	72	120	110
Total current week	5,095	6,167	5,828	5,990
Total year ago	14,916	14,573	13,400	13,207
U. S. soybeans in store and afloat at Canadian markets				
Total current week	51	125	81	48
Total year ago	85	54	26	0
Total North American commercial grain stocks				
Current week	5,146	6,292	5,909	6,038
Year ago	15,001	14,627	13,426	13,207

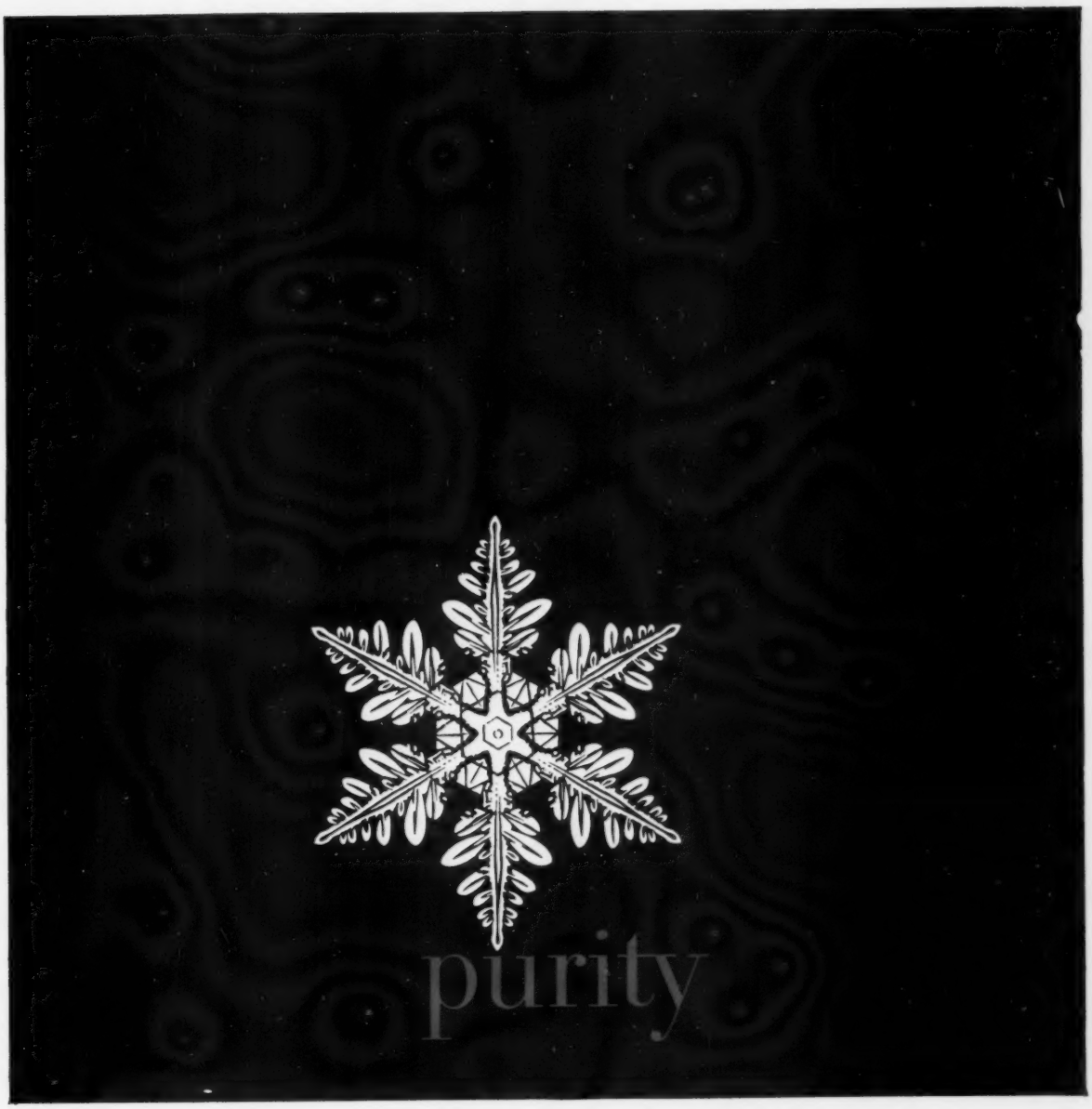
Primary receipts (1,000 bu.) of soybeans at important interior points for week ending:

	May 24	May 31	June 7	June 14
Chicago	798	674	542	569
Indianapolis	65	10	48	54
Kansas City	227	80	67	37
Minneapolis	49	43	50	62
Omaha	6	7	9	9
Peoria	48	17	17	40
Sioux City	4	7	29	25
St. Joseph	30	20	28	32
St. Louis	4	9	7	4
Toledo	174	99	117	125
Totals	1,405	966	914	957
Last week	881	1,405	966	914
Last year	913	749	605	586
Total Chicago soybean stocks	2,405	2,823	3,163	2,926

INSPECTIONS. Soybeans inspected by grades and percent, reported by Agricultural Marketing Service.[1]

Grade	Oct.-May 1955-56 1,000 bu.	Pct.	Oct.-May 1956-57 1,000 bu.	Pct.	May 1956 1,000 bu.	Pct.	April 1957 1,000 bu.	Pct.	May 1957[2] 1,000 bu.	Pct.
No. 1	51,887	22	38,160	16	3,260	22	2,264	16	2,608	15
No. 2	118,288	49	96,557	41	6,293	43	6,546	46	7,835	46
No. 3	48,436	20	53,913	23	3,489	24	2,993	21	3,186	19
No. 4	17,706	7	32,658	14	1,261	9	1,552	11	2,326	14
Sample	5,352	2	15,027	6	372	2	983	6	992	6
Total	241,669	100	236,315	100	14,675	100	14,338	100	16,947	100

[1] Carlot receipts have been converted to bushels on the basis that one carlot equals 1,750 bushels. [2] Of the May 1957 receipts, 1,750 bushels were black, 3,500 mixed, and the remainder yellow soybeans. Inspections of soybeans in May included 3,964,827 bushels as cargo lots, 1,322,113 bushels as truck receipts, and the balance as carlot receipts. Based on reports of inspections by licensed grain inspectors at all markets.



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